THE NATIONAL Provisioner

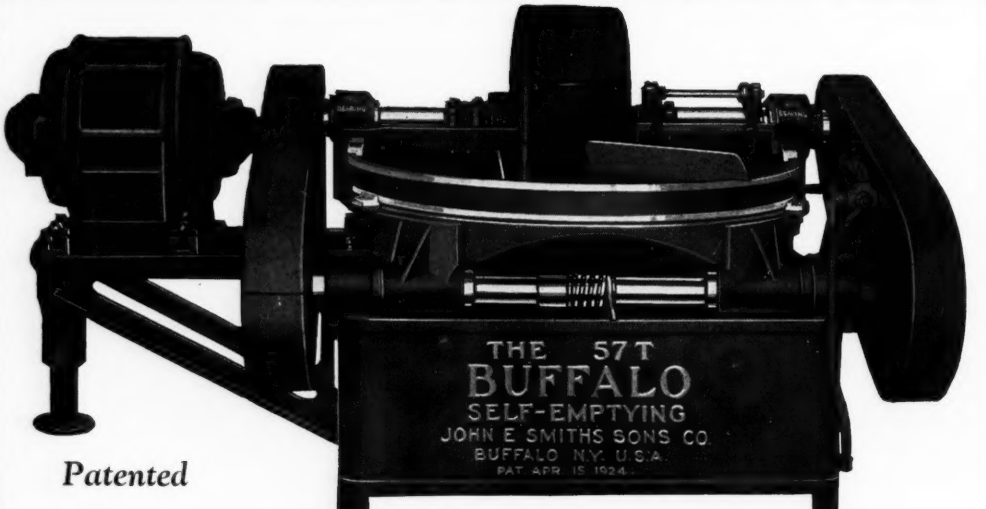
THE MAGAZINE OF THE
Meat Packing and Allied Industries

Volume 81 SEPTEMBER 7, 1929 Number 10

MAX TRUNZ, Brooklyn, N. Y.

installs the latest model

"BUFFALO" Self-Emptying Silent Cutter



Patented

Bowl raised and lowered by compressed air

Model 57T—shown above—cuts FINE and empties 600 pounds of meat in 5½ minutes, without touching it by hand!

Many of the largest and most prominent sausage manufacturers in the country are now using this wonderful new machine. It improves your quality—and also increases your yield.

TWO SIZES: Model 43T—Capacity 250 lbs.
Model 57T—Capacity 600 lbs.

It will pay YOU to investigate!

Write to-day for full information!

JOHN E. SMITH'S SONS CO., Buffalo, N. Y., U. S. A.

Manufacturers of the world-famous line of "BUFFALO" Silent Cutters, Mixers, Grinders, Air Stuffers, the Schonland patented Casing Puller and the TRUNZ-"BUFFALO" Bias Bacon Slicer

BRANCHES: Chicago, Ill., U. S. A. London, Eng. Melbourne, Australia

THE NATIONAL Provisioner

THE MAGAZINE OF THE
Meat Packing and Allied Industries

OFFICIAL ORGAN OF THE INSTITUTE OF AMERICAN MEAT PACKERS

Volume 81. No. 10 SEPTEMBER 7, 1929 Chicago and New York

Industry Testing Mechanically Refrigerated Cars

Recent Improvements and Developments May Forecast New Methods in Railroad Transportation of Meats and Products

The meat industry has been responsible, in large measure, for the development of the refrigerator car.

Conceived as a means for transporting meats from the livestock producing sections of the West to the large consuming centers of the East, its uses have increased until at least 150,000 cars are rolling today on the railroads of the country.

These cars represent an investment conservatively estimated at $450,000,000.

Meat packers own some 25,000 refrigerator cars, valued at about $75,000,000. Practically all of these are refrigerated with ice and salt contained in bunkers at each end.

This method of refrigeration originated, quite naturally, from the use of natural ice when the preservation of food products by cold storage first began to be an important phase of our national development.

Effort to Increase Capacity

Not so long ago the engineer of one large meat plant did considerable experimental work in an effort to provide a greater loading space in each refrigerator car, without increasing its size or weight.

Among other things, he considered reducing the size of the bunkers and placing the false floor closer to the floor of the car. He had figures to show that a few more square feet in each car would save his company thousands of dollars each year.

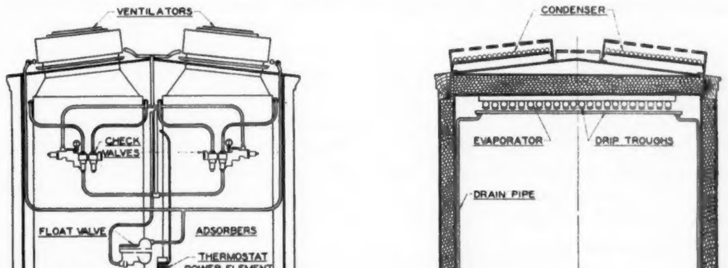
At that time he did not go into the merits of mechanically refrigerated cars as a means of saving money, reducing waste and increasing operating efficiency, but recently he commenced a study of these cars.

His preliminary investigations, he says, lead him to believe there is in the meat industry a future for mechanically refrigerated cars greater than is appreciated by many meat plant owners. He sees in them the means of rendering a better service, delivering meats in better condition and lowering meat transportation costs.

Refrigerator Car Development

One packer has been experimenting rather extensively with unit mechanical refrigeration for refrigerator cars.

As yet his experiments have not developed to the point where he cares to make public any information on the



HOW THE APPARATUS IS INSTALLED IN A CAR.

At the left are shown the absorbers, burners and control apparatus regulating the fuel to the burners. Ventilators extend above the roof to carry off the heat.

At the right is shown a cross-section through a car equipped with mechanical refrigeration. The evaporator is suspended from the ceiling and the condensor is placed on the roof.

results obtained, but it is understood that from many standpoints he is well pleased with the results he has secured so far.

He has found, it is reported, that a comparatively low and even temperature can be maintained within the car for long distances and over considerable periods of time without any attention whatever being given to the refrigerating apparatus.

Tests of Car Temperatures.

In one case, with outside temperatures varying from 45 degs. F. to 95 degs. F., and over a period of nearly seven days, the temperature variation within the car, as shown by a recording thermometer, was from 17 degs. to 25 degs.

On another test run, lasting about six days, and with outside temperatures varying from 48 degs. to 85 degs., the temperature within the car varied from 32 degs. to 41 degs.

In another instance a mechanically-refrigerated car was loaded at a New York state point with 33,000 lbs. of S. P. bellies, and consigned to a western destination.

The temperature of the bellies when placed in the car was 42 degs. The car was in transit five days, the average outside temperature being 61 degs., with a minimum of 46 degs. and a maximum of 88 degs. The temperature of the meat at unloading was 34 degs.

So far as packer experience is available, it seems possible that with mechanically-refrigerated cars the following advantages are possible:

Mechanical Refrigeration Advantages.

1—Temperatures available are lower than can be obtained with ice, and the temperature can be controlled automatically within close limits.

2—The temperature is more uniform through the car. When ice and salt are used as the cooling mediums, cooling is dependent on circulation of air for half of the car. With mechanical refrigeration the cooling coils are distributed over the ceiling.

LOADING NEW TYPE CAR.

The first carload of fresh beef to be shipped in a mechanically-refrigerated car from Chicago to New York. This was prize stock from the International Livestock Exposition and was shipped by and consigned to Swift & Company.

3—More loading space is available, the refrigerating equipment requiring but half the space usually devoted to bunkers.

4—Cars can be made as long as desired without loss of cooling efficiency.

5—There is no loss of time en route for re-icing. The fuel supply for operating the refrigerating equipment will last for nine days.

In this connection it is obvious that from the time standpoint there would be no advantage in including a mechanically-refrigerated car in a train composed in part of cars refrigerated with ice and salt, as delays for re-icing these latter cars would also delay the mechanically refrigerated car.

So far as the meat packer is concerned, however, it may be expected that these cars will be used principally in trains composed of cars consigned to miscellaneous destinations, for peddler car service, for local shipments and for loads of medium size.

Absorption Principle Used.

The mechanically refrigerated cars which have received the most attention from the meat packing industry, and to which reference is made here, are those equipped with the silica gel absorption system. Silica gel is used as the absorbent, sulphur dioxide as the refrigerant and air cooling for the condensor and absorbers.

Silica gel is pure silicon dioxide, and is chemically inert toward practically all chemical substances. It is of an extremely porous nature, and has the property of absorbing large quantities of vapors or liquids, which can be removed from the gel by activating with heat. These processes of absorption and activation, it is said, can be carried on indefinitely without change to the physical structure of the material.

As used in refrigerator cars, this refrigerating system consists of the following apparatus:

Apparatus Which Is Required.

1—The absorbers, burners and ventilating apparatus. These are placed in a compartment at one end of the car.

2—The evaporator. This is placed below the car ceiling.

3—The condensor mounted on the roof.

4—A float valve on the high pressure side.

5—Check valves between the absorber and the evaporator and condensor. This directs the gas to the proper place during the activation and absorption processes.

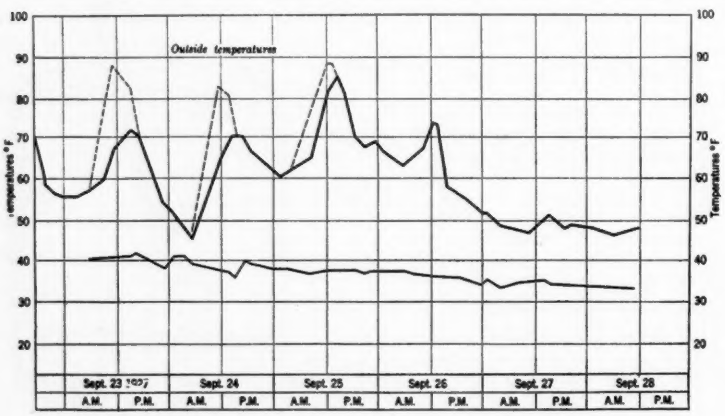
6—A gas fuel supply system for supplying fuel to the burners.

7—A control system for supplying heat to the absorbers at the proper time for activation.

Two absorbers and a heating apparatus are placed in a special compartment in one end of the car. Two absorbing units are provided in order that the action may be continuous, one unit being heated to drive off the refrigerant while the other is absorbing the gases from the evaporator preparatory to being heated in its turn.

These absorbers contain the silica gel and are composed of a large number of ¾-in. steel tubes. These are in vertical position, having their lower ends sealed and the upper ends welded into headers, which in turn are welded into a large

(Continued on page 45.)



AN EVEN TEMPERATURE IS MAINTAINED MECHANICALLY.

This shows the outside temperatures and the temperatures maintained in a car of S. P. bellies shipped from Buffalo, N. Y., to Wichita, Kan.

The car contained 33,000 lbs. of meat and was in transit five days. The temperature of the bellies when placed in the car was 42 degs. The average outside temperature was 61 degs., with a minimum of 46 degs. and a maximum of 88 degs. The temperature of the meat at unloading was 34 degs.

"*Keeping Up with the Times*" Is the Key to This Man's Success in Meat Merchandising

By E. A. Bingham

"The secret of success in merchandising?"

He made my question seem rather elementary, almost simple, as he repeated it, with that engaging smile and that brilliant twinkle in his eyes that explains in some measure, although not wholly, the unhalting progress of Frank M. Firor from an obscure beginning to a place of prominence in the meat packing industry.

He chose to summarize that career with characteristic brevity:

Born on a farm in Western Maryland. Clerked in a village store, where he began to perceive the vital relationship between honest merchandising and plain human nature.

Modest Progress to the Front

To Washington, D. C., in 1884, where in a wider field he came into that long association with George Kern; to New York with Kern some twenty years ago.

The struggle for a first year's business of $75,000; the call to Gobel's two and one-half years ago; the amalgamation of the two concerns; the presidency of Adolf Gobel, Inc.

The appreciation of his responsibilities and opportunity. Swift expansion. A constant eye to quality of products. Plants in New York, Pennsylvania, District of Columbia, and westward.

Moving out, reaching, growing; a wonderful future.

"The path of least resistance does not lead to success."

Live wire. Dynamic in his way of speaking. But very human. Regrets, a little wistfully, that "unfortunately there are only twelve or fifteen hours in my working day."

Keep an Eye on the Top

"This business is not easy. You've got to like it, first thing. And keep an eye on the top.

"Tell that to the young men who must come along to take our places. Liking the job, and doing it.

"Practical experience is better than any special training. The day's work, and tomorrow's ever-new opportunity. A wonderful future for any man who really wants it."

The head of an organization now of national prominence, a determined growth from that Kern first year of $75,000 and the small Gobel business of supplying restaurants in Brooklyn.

"The necessity for intensive and increased sales is greater in the prepared-meat business than in any other line," he continued swiftly.

Must Meet New Conditions.

"And being wide awake. New conditions face us almost overnight. Automobiles. Changed ways of living.

"The public's demands for prepared foods are increasing daily. The women want more leisure, less cooking, less hard work.

"Don't blame them if they are backing away from the hot stove. Help them. If you don't, you are going to lose out. Gobel went into jar and canned meats to fill that order. The women will want more and more of that, just as they want more canned soups, canned vegetables, canned fruits.

Some Meat Men Are Asleep.

"I have met persons in this industry who seem to think that jar goods, canned goods, package goods are specialties, to be treated as such.

"They are asleep. Neglecting those lines, they will wake up not only to find their wide-awake competitors supplying new wants of which they have not dreamed, but to see the route wagons of those same competitors making the sales of hams, bologna, pork, dry sausage and all the rest of their business.

"Packages. That is the word of the hour. An immense future. We shall soon have new things to show in that line.

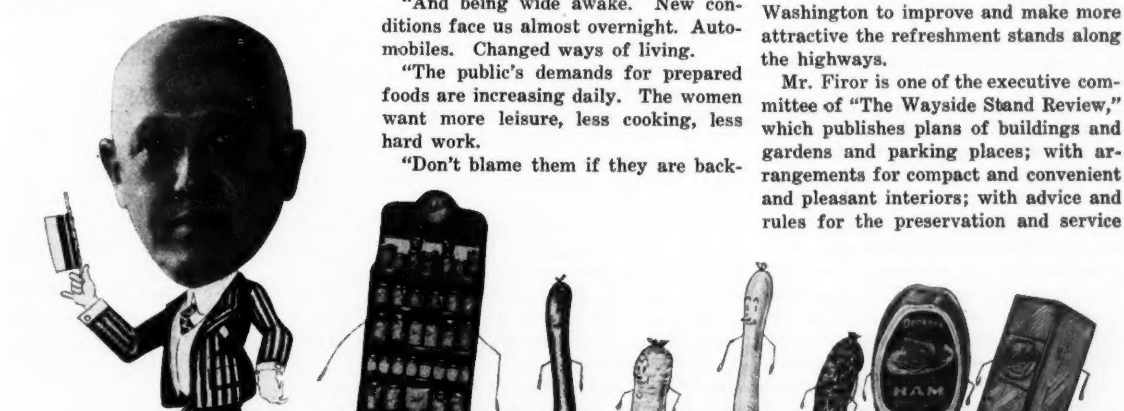
This is the Day of the Package.

"Packages for every individual demand; for the new order of hand-to-mouth housekeeping; for the women who buy just enough for one or two meals, and clean out the refrigerator every day."

He spoke then of the enormous and significant growth of the wayside stand business—the great travelling public, breakfasting, lunching, dining en route.

The Gobel Company has been one of the pioneers in supporting the efforts of the Art Center League of New York and the American Civic Association of Washington to improve and make more attractive the refreshment stands along the highways.

Mr. Firor is one of the executive committee of "The Wayside Stand Review," which publishes plans of buildings and gardens and parking places; with arrangements for compact and convenient and pleasant interiors; with advice and rules for the preservation and service



of perishable foods; with instructions for clean and attractive marketing of produce.

Development of Wayside Stand.

"The prizes we have offered the past two years for the best design for wayside stands are bearing most encouraging results," Mr. Firor said.

"One result is the now well-known offer of Sears, Roebuck & Co. to lay down stands in three types at cost.

"The meat packer is doing a public service and good business for himself when he encourages and supports the beautifying of roadside places and the catering to an eager public.

"Merchandising must never rest. It must seek a new outlook every morning. New invitations, new allurements to a public that has more money to spend—and perhaps less time to spend it in any one place—than any public in history.

Zero Hour for Salesman.

"I tell our sales force that they are our infantry—the infantry that goes over the top after the general staff has planned, the quartermaster has furnished supplies, the ordnance has furnished guns and ammunition, the artillery has laid down a barrage.

"Then comes the zero hour. The infantry sales force advances on the trenches of sales resistance, captures them, holds them, consolidates them—then the next day goes out and gains more ground.

"That new ground is perhaps the greatest point in business success. Any firm that does not increase the accounts on its books at least 25 per cent per year is going to lose out. This applies to salesmen as well.

Going After Customers.

"Old customers are always quitting business to retire or move elsewhere. New customers must be found.

"Many a salesman has opened a new account, sold him once or twice, and for some reason never sold him again.

"If that happens, the chances are it's the firm's fault, not the salesman's. The firm is too lazy, too indifferent, too cold-blooded to cooperate with the salesman long enough to get under that man's skin.

"A new account is a stranger; a stranger is suspicious, over-cautious and impatient. We must make a friend of him.

"The old customers that have fallen away must be looked after. Lost customers—why lost?

The Most Inexcusable Loss.

"This is the biggest, the most senseless loss that can occur to any firm. The truth is that the reason for every lost customer is that *somebody didn't care whether he was lost or not.*

"So, because somebody isn't man enough to tell about it, or because somebody won't go out and find what is 'biting' that customer, all the labor, all the energy, all the time that has been expended to get that customer must be pitched into the ash-can with a shrug of the shoulders and the usual remark, 'Aw, we'll get two better than he.'

"That attitude is old stuff. Even Rockefeller cannot be so independent as that in this competitive age.

"If we can get two new customers like the one we lost, why not get them without letting the old one go? In simple arithmetic, we will then have three.

Looking for New Customers.

"Then we have the prospective customer, not yet ready to fall into our lap.

"Maybe he is not yet in the market.

"Maybe he is loyal to some other house—for which we respect him—but may change his mind, become dissatisfied. That is when we want to be there. We want him to know us before he starts to buy from us.

"If we know where he is, we can—so to speak—bid him the time of day, with a smile. It may take a little time, but some day he may be ready. And if we have treated him well before he bought he is going to be a friend from the start.

"Finally, we have 'Making old customers new customers.' In other words, the attempt to make the old customer buy more and more of our line.

"This is not an easy job. It requires diplomacy. The customer is quick to tell you to let the other fellow live.

"Of course that would be fine, if the next salesman did not keep trying to get some of our business. That is business—fair business if it is done fairly.

Know and Believe in Your Product.

"Fairness, mixed with confidence in our product, and the energy to tell the world, and sell to the world—that about sums it up.

"We have been advertising for years that our products are pure, wholesome and of the highest quality.

"We made up our minds that we were not going to PAY for endorsements. We went to Good Housekeeping Institute, and had some of our products put to the strictest laboratory test. We have received a diploma which permits us to use the Institute endorsement to help the dealer sell our products.

"This engraved and framed testimonial hanging in the dealer's store is good advertising, not only for us, but to the dealer himself. It will give every woman who buys in his store a greater confidence, not only in our products, but by inference in everything he offers for sale."

These are just a few of the things Frank Firor said to me as I sat in his office one day. I was there only about fifteen minutes—and I am told that was a record!

Anyhow, it was long enough to grasp what seemed to me to be the greater part of the philosophy of successful meat merchandising.

Farm and Livestock Interests Favor Packers as Food Distributors

Representatives of some of the principal farm and livestock organizations of the country are advocating modification of the packers' consent decree at hearings being held by the U. S. Department of Agriculture at the request of the Attorney General of the United States.

The hearings are before a committee of the department consisting of Dr. John R. Mohler, chief of the Bureau of Animal Industry, Dr. Nils Olsen, chief of the Bureau of Agricultural Economics, and R. W. Williams, solicitor of the Department of Agriculture.

In opening the hearings, Secretary of Agriculture Hyde told the witnesses that the hearings had nothing to do with the possible law involved in the petition for modification of the decree, but said "we are interested, however, in the possible effect for good or ill of the various modifications involved upon agriculture."

The view of the farm organizations, he said, will be transmitted to the attorney general for his information, and "possibly for his guidance as to the economic effects upon farm prices, farm marketing and agriculture generally," of the modification of the consent decree requested.

Urge Freedom on Packers

Among the livestock representatives who have already been heard are F. R. Mollin, secretary of the American National Livestock Association, who represented also the cattle growers' associations in Arizona, California, Nebraska, Nevada, New Mexico, South Dakota, Utah and Wyoming; Dayton Moses, counsel for the Texas and Southwest Cattlemens' Association; J. D. Wilson, representing wool growers in half a dozen far western states; Joseph H. Mercer, secretary of Kansas Live Stock Association; J. D. McGinnies, president of the Chautauqua and Erie Grape Growers' Co-operative Association of

(Continued on page 57.)

Problems of Chain Meat Market Management

Meat Shop in the Grocery Chain
Result of Changing Food Trends
How These Markets Are Conducted

Chain meat markets spring up so rapidly that there would seem to be little difficulty in their establishment and management. Out of a total of 800 grocery chains, 260 have added meat departments.

The chain meat market and the meat departments of chain grocery stores present more difficult problems of profitable management, however, than straight grocery chains.

The most successful meat chains are those owned and supervised by experienced meat men, who usually do the buying for their markets. These chains are not always large, but many of them do a large volume of business per store.

Trend Toward "Food Stores"

With a strong trend toward food stores—due to the desire of many consumers to make all of their purchases in a single store—the need has become more and more apparent for adding meat departments to chain grocery stores.

In some cases this has been done in the belief that the sale of meats would increase the purchase of groceries, and in others the meat departments were started to hold the grocery trade.

In many cases meat departments of grocery chains have not proven profitable, particularly in the first year of their existence. In some stores they barely pay expenses, but they are retained in the belief that the returns on the entire store are better as the result of having the meat department.

In a study of the management of chain meat markets, made by E. L. Rhoades of the University of Chicago, as part of a series of studies dealing with the chain store as a factor in the distribution of meat and meat products, many of the problems and conditions of management of the meat department of the grocery chain are discussed, as well as the advantages of such departments.

Less attention is given to the straight meat chain, which Mr. Rhoades says in many cases "represents in equipment, in pricing policy, and in advertising technique the most perfect type of retail meat outlet." The most successful of these are found in the shopping districts of the various cities.

Meat Chain and Grocery Market.

On the other hand, it is recognized that much meat retailing must be done nearer the homes of consumers. Thus the grocery meat department presents itself as of greatest importance in chain store distribution of meats and meat products.

After discussing briefly the straight meat chain and the packer-owned chain and the reasons why grocery chains are adding meat markets, Mr. Rhoades turns his attention to meat shops in grocery chains.

He discusses the location of these markets, their equipment, the size of the shop, the selection and training of managers, wages and other incentives, labor turnover, supervision, the ordering of product, the buying of product, frequency and method of taking inventory, pricing policies, leaders, branded meat products, costs and profits, method of allocation of rent and other overhead costs, and the ownership by chains of warehousing and packing facilities.

The first in this series of studies, entitled "The Chain Store and the Packing Industry," appeared in THE NATIONAL PROVISIONER of August 24 and August 31, 1929.

The third in the series, entitled "Chain Stores and the Independent Meat Retailer," appeared in THE NATIONAL PROVISIONER of August 10, as an address delivered by Mr. Rhoades before the annual convention of the National Association of Retail Meat Dealers.

Management of Chain Meat Markets

By E. L. Rhoades*.

Grocery chains are finding it desirable to add meat markets in constantly increasing numbers. Two hundred and sixty out of a total of eight hundred grocery chains have added meat departments to some of their stores.

There is a distinct trend toward combination food markets and away from specialized grocery stores and straight meat markets. Housewives apparently prefer to purchase their daily supply of food from one store rather than from several.

Why Grocery Chains Are Adding Meat Markets.

This pressure from consumers is forcing chains to add meat departments in order to protect and expand the grocery trade. Many of the meat departments are proving profitable; others are being nursed along in the hope that they will show a profit, or that the combination stores as a whole will prove more profitable than straight grocery stores.

The 22 chains reporting in this study all indicated that they had added meats to hold their grocery trade, while 18 of the 22 said they hoped to make a profit on the meat line.

Nineteen answered that they had entered the meat business to make a profit on meats. Others answered in regard to meat profits as follows: "Yes, if possible;" "To compete with other chain grocers;" "More service to trade;" "Second consideration;" "Furnish a complete food store as near as possible."

Aggressive Chain Competition.

There are approximately ten thousand meat markets run by chain grocery companies in the United States, in addition to approximately two thousand markets in straight meat chains. This represents an increase of perhaps 50 per cent during the last year.

This growing movement reflects in many cases competition between chains that are forcing each other more rapidly into this field. If one chain adds meat markets, other chains in the same area feel that they must add markets to protect their part of the grocery trade.

The aggressive psychology of expansion may in part explain the rapid development of the meat business within the grocery chains, but the continuation of expansion in this field by chains that have had experience with meats indicates that the movement has a secure foundation.

The Straight Meat Chain.

While the meat shop in the grocery chain is the important new development in meat retailing in the United States,

*The second of a series of studies of the chain store as a factor in meat distribution, conducted under the direction of the Bureau of Business and Economic Research, University of Chicago, with funds provided by the Local Community Research Committee of the University of Chicago and the Institute of American Meat Packers.

the straight meat chain is of considerable importance.

There are perhaps 2,000 meat shops in the United States belonging to such straight meat chains, and the total volume of product handled is a much larger proportion of the total meat trade of the country than the relative number of shops would indicate. This is because the straight meat chain tends to be a chain of large meat markets in central shopping sections, where large shops may be maintained employing many men to serve a large number of customers who pass such locations each day.

TABLE I.*
Extent of Meat-Chain Development
(Analysis of Meat Departments Run by Grocery Chains)

Size of chain.	No. of chains.	No. of markets.
1,000 markets or over	2	4,500
500-999	2	1.300
200-499	None	None
100-199	7	976
50- 99	13	839
25- 49	24	822
15- 24	22	407
10- 14	33	371
5- 9	72	485
Less than 5	172	388
Total	347	10,088

* Data taken largely from the grocery-chain list provided by Chain Store Age. The exact number of A. & P. and Kroger markets is not known precisely, but they are increasing rather rapidly. The estimates are as of Jan. 1, 1929.

These straight meat shops are largely "cash and carry." They commonly have modern equipment with extensive refrigerated show cases, many meats already cut in trays, and prices conspicuously displayed in order to facilitate the rapid serving of a large number of customers.

There are many such shops in the United States that handle from one-half million to one million dollars' worth of product per year per shop. A chain of a few such shops represents a very material factor in the trade of any city.

Management Is Experienced.

The management of the straight meat chain represents a distinct problem in itself, not to be confused with the management of meat departments in grocery chains.

Such meat chains are commonly owned and controlled by meat men of long experience, with the owner frequently serving as the chief buyer as well as the immediate supervisor of all the stores. Such an owner-supervisor may visit each store daily and personally take note of stocks, prices, window displays, efficiency of the force and many other items which the owners of a grocery chain must leave to subordinates, and in many cases must judge only through written reports.

It is seldom that a straight meat chain exceeds twenty units, four or five stores being much more common. In our larger cities twenty or more units are commonly required in order to obtain efficiency in newspaper advertising, but in some of the smaller cities one or two large markets will handle a sufficient volume properly to absorb such advertising overhead.

Average Meat Sales

What are the average weekly sales of the meat department of a chain food store?

Average weekly sales in 1,552 markets reported by 20 chains totaled $502.85 per store—all the way from an average weekly sale per store of $2,000 down to $300.

In large shops weekly sales averaged from $500 to $10,000. In small shops the minimum weekly average ranged from $200 to $500.

The largest sales per store were found in the Eastern district of the United States and the smallest in the Southern district.

A Perfect Retail Meat Outlet.

In many cases the straight meat chain represents in equipment, in pricing policy, and in advertising technique the most perfect type of retail meat outlet. In no other kind of retail meat institution perhaps can so much technical efficiency be secured.

However, such specialized straight meat chains are commonly found only in central locations, and perhaps are only adapted to such shopping centers, while the greater part of meat retailing must be done by retail units nearer to the homes.

The management of the straight meat chain will not be considered in detail in this bulletin. Some of the major problems discussed in the mention of meat departments in grocery chains would apply with limitations to this field. With this brief introduction to the problems of the straight meat chain we shall turn our attention more specifically to the management problems of the meat departments of the grocery chain.

Packer-Owned Chains.

Before taking up analysis of the management of the meat departments of grocery chains we should perhaps consider briefly the straight meat chain owned by a packer.

There are few such chains in the United States and most of them are not particularly successful. The recent spread of meat shops in chain grocery stores throughout the United States has called attention to the fact that meat retailing may be done on a large scale, and has raised a question in the minds of many packers as to whether or not they could profitably enter the retail business with packer-owned chains.

This question has arisen in part by reason of the feeling among some packers that chains have purchased at prices which gave the packers little or no profit, and that profit in the meat business was apparently going to the chains rather than to the packers.

A Successful Packer Chain.

In a few cases packers have started small chains of large, centrally located meat markets. In two or three cases such chains have been very satisfactory and profitable to the packer, in one case becoming so important as to absorb more than the entire output of one small packer and require the purchase of additional products from other packers in order to supply the retail markets.

Most experiments by packers have not been so profitable however, for several reasons. In the first place, the independent retailers feel rather keenly the competition of a packer in the retail trade, and through their associations and otherwise tend to discriminate against such a packer in their purchasing.

The packer therefore does not feel safe in starting a chain of retail markets of his own unless he is assured of an outlet for practically his entire production. If he starts on a scale adequate to insure an outlet for his entire production he is taking a great merchandising risk and is finding himself suddenly launched upon a business more complex and baffling to him than his own packing business has been.

Location of Meat Shops.

Returning to the specific problem of the management of meat shops in grocery chains, we find that location is one of the most difficult problems. The chain is particularly interested in diversifying and expanding its business in many local stores, but many locations that are satisfactory for small grocery units are not at all satisfactory for meat shops, nor can a chain expect profitably to add a meat department to every grocery store.

Meats are a perishable product that must be moved with reasonable speed and must be cut and sold by a specialist. Therefore, meat retailing can only be carried out efficiently on a scale large enough to warrant the employment of a skilled meat-cutter.

Grocery chains selecting locations for their meat markets commonly have not developed any very scientific methods, but have to a great extent relied upon the common sense of the men in their meat business to select good meat-retailing locations. Locations have been selected generally on the basis of the existing retail meat trade.

In other words, chain grocery companies have typically placed their meat shops in localities more generously supplied with competitive retail meat shops. Such a system of locating stores courts the most intense competi-

(Continued on page 46.)

THE NATIONAL
Provisioner
Chicago and New York

Member
Audit Bureau of Circulations
Associated Business Papers, Inc.

OFFICIAL ORGAN INSTITUTE OF AMERICAN MEAT PACKERS

Published Weekly by The National Provisioner, Inc. (Incorporated Under the Laws of the State of New York) at 407 So. Dearborn Street, Chicago

OTTO v. SCHRENK, *President.*
PAUL I. ALDRICH, *Vice-President.*
OSCAR H. CILLIS, *Sec. and Treas.*

PAUL I. ALDRICH, *Editor and Manager*

GENERAL OFFICES.
Old Colony Bldg., 407 So. Dearborn St., CHICAGO, ILL.
Telephone Wabash 0742, 0743, 0744.
Cable Address "Sampan," Chicago.

EASTERN OFFICES.
55 West 42d St., New York
Telephone Chickering 3139

PACIFIC COAST OFFICE.
681 Market Street, San Francisco, Calif.
NORMAN C. NOURSE, *Mgr.*

TERMS OF SUBSCRIPTION INVARIABLY IN ADVANCE, POSTAGE PREPAID.

United States	$3.00
Canada	4.00
All Foreign Countries in the Postal Union, per year	5.00
Single or Extra Copies, each	.10
Back Numbers, each	.25

Is Your Paper Late?

THE NATIONAL PROVISIONER is put on mail trains in Chicago every Saturday before 11 a. m. It should reach you promptly.

If there is any delay, please save the wrapper, mark on it the hour of delivery to you by the carrier, and send it to THE NATIONAL PROVISIONER, *Old Colony Bldg., Chicago, Ill.*

This will aid us in obtaining proper service for you from the Post Office.

Good Beef Advertising

Some fancy beef is available at this time, produced by the calves bred and finished by club boys and girls. These calves are exhibited at the state fairs and then sold for slaughter. They are carefully selected and carefully fed, and compete sharply with each other for honors in beef conformation and finish.

The publicity for good beef furnished by these specially-raised animals is some of the best that can be had. The calves are bought by the packers for the various hotels, restaurants, dining cars, cafeterias and other public eating places, and the beef is featured on the bills of fare as fancy baby beef, or prize winning beef as the case may be.

All of this beef is well above the average of that produced by cattle coming on the market at this season of the year.

At the Iowa State Fair, at which the largest exhibit of baby beef calves is made, more than 400 club calves were shown this year. These calves were sold at prices ranging from $30.00 per hundred down to $18.00 per hundredweight. Some were bought for special accounts while others help to supply the fancy beef trade of the packers.

The club boy or girl raising fancy calves, hogs or sheep is deserving of the support of the packing industry. They are among the best producer friends the packer has.

What the Packer Really Needs to Know

Pork production in 1929 has been a good deal heavier than was anticipated, yet the usual amount of this product has entered consumptive channels. However, the packer may find that the year has not been as profitable a one for him as was 1928.

The more or less unsatisfactory year will be attributed to bad guessing in the hog buy, poor merchandising, and many other controllable circumstances.

But back of all of these things there appears to be a fundamental difficulty, and this is lack of information. The industry operates on the belief that everyone eats meat, and that there will be an outlet for all that is produced.

Perhaps this is true.

But at what price must the meat move to find an outlet? Will it be at a price commensurate with what the packer has paid for his livestock? Or must he sacrifice much of the product to insure its consumption?

Information is eagerly sought about the hog crop, the cattle supply and the number of lambs available for slaughter.

But who knows how much product the public will consume? Estimated per capita meat consumption varies from year to year, depending on the quantity available and the price at which it moves into consumptive channels.

A fair knowledge of the packer's outlet would seem to be more vital even than to know the number of meat animals produced.

When beef is plentiful and fairly reasonable in price it influences the amount of pork consumed. Approximately 400,000 more lambs have been marketed in each of the last few years than in the previous year. What influence has this had on the demand for beef and pork?

How much influence does a large supply of poultry and eggs have? When eggs and chickens are cheap, do they influence adversely the consumption of beef or pork?

At what price must pork sell to insure the consumption of 43,000,000 hogs annually on a profitable basis for both producer and packer?

How many cattle should be marketed as a supplement to these 43,000,000 hogs? How many sheep?

When cattle supplies are heavy and beef is cheap 43,000,000 hogs may be too many. When beef is scarce and high that number may be insufficient.

How should the product from these hogs be priced to insure its quick movement?

The packing industry has operated too long without a fair knowledge of its outlet. It has given too much thought to its raw product supply, and too little to its market for the finished product.

There should be an index of consumption at different price levels. This index should be common knowledge. With such an index available, each packer will have a little better idea of the basis on which he can conduct his business.

Is the industry willing to take the necessary steps to get this information—and then act on it?

Practical Points for the Trade

To Make Good Wieners

A wholesaler who is just entering the sausage business wants to know how to make wieners. He says:

Editor The National Provisioner:

We want to make wieners and would like a good formula for this product. We have an Enterprise and a silent cutter. We have been smoking our sausage with maple wood in a brick smokehouse, and are using flour as a binder.

For the manufacture of wieners use 50 per cent beef trimmings and 50 per cent pork, either lean trimmings, head meat, or cheeks.

The beef should be lean, with the sinews and fat removed, strictly fresh and all dry cured with

2½ lbs. salt
3 oz. saltpeter
6 oz. sugar.

Grind the beef through the 7/64-in. plate of the grinder; then put into the silent cutter and chop fine, adding seasoning and flour and approximately 20 to 25 lbs. of ice, or as much more as the meat will take.

Then grind the pork trimmings through the ⅝-in. plate and add to the beef in the chopper, cutting fine. Twenty-five per cent of the pork trimmings should be fat regular trimmings or jowls, and may be used green (not cured) by cutting through the ⅝-in. plate of the grinder and adding in the silent cutter after the beef and pork have been finely cut.

It is advisable to add some of the ice after the fat pork trimmings or jowls have been added. To some extent this will form an emulsion of meat, fat and water and give the mixture a light color and produce a juicy wiener.

After the wieners have been stuffed they should be placed on the hanging truck or on racks in the cooler at a temperature of 36 to 38 degs. F., and left there for 6 or 8 hours or preferably overnight before smoking and cooking. This will produce a nice red inside and outside color.

Smoke over a good even fire, starting at 120 degs. F. and raising gradually to 155 degs. F. at the finish, but do not have it hot enough to make the product drip or wrinkle.

Cook in 155 degs. F. water about 10 to 15 minutes, then put into cool water for a few minutes only and hang up to dry. If possible to do so, the best plan is to hang them up on a truck after taking out of the cook box and spray with cool water if they are not bunched. If bunched, placing in cool water is best.

The silent cutter and grinder knives and plates must be sharp to get good results and the ice should be crushed to small pieces or shaved.

The spices frequently used in this product consist of the following:

4 oz. white pepper
4 oz. coriander, finely ground
2 oz. ground caraway seed
2 oz. ground allspice
A little garlic.

Five pounds of good sausage binder may be added to the meat in the silent cutter.

S. P. and D. C. Shrinks

A Southern packer asks regarding the difference in shrink between meats cured in pickle and those dry cured. He says:

Editor The National Provisioner:

Will you tell us the difference in shrink between dry sugar cured bacon and sweet pickle bacon?

There is some difference of opinion as to the difference in yield of dry cured and pickle cured bacon. This difference is due in part to the quality of the meat and the method of handling.

A fair average yield of dry cured bacon from the green to the finished smoked weight is 88 to 91 per cent, and of sweet pickle from 90 to 94 per cent. The average difference between the dry cure and the sweet pickle cure is approximately 3 per cent in favor of the pickle meats.

Cuts Used for Dried Beef

What cut of meat is used for dried beef? A meat curer who is planning to produce this specialty writes as follows:

Editor The National Provisioner:

What cuts of beef are used in the manufacture of dried beef? How are they made?

Insides, outsides and knuckles used in the manufacture of dried beef are cut from what is known as the stripper round, which is the round with the rump cut off.

This cut is faced round by the round stripper and the knuckle piece is cut through; then the knuckle joint is cut from under the round. The meat is next loosened from around the shank bone and the knuckle pulled away.

The round is then turned over and a cut made one-half inch below the gam. The remaining piece is split along the center clear down to the bone, and is divided into two pieces to make the inside and the outside beef hams.

All excess fat should be trimmed off from the inside and outside hams, and the meat is then ready for cure.

Yields in Cracklings

A renderer asks regarding the yields in grease and protein of cracklings. He says:

Editor The National Provisioner:

We are thinking of putting in some equipment to render cracklings and would like information on the yield to be expected from average cracklings.

What is the grease content of hard pressed pork cracklings? Of soft pressed pork cracklings? What is the moisture content?

What will the resulting product run in protein?

The crackling yield depends in considerable measure on the raw material that is being rendered.

Hard expeller-pressed pork cracklings may run as low as 7 to 8 per cent grease, but in most cases they run 10 to 12 per cent, which is considered good.

Soft pressed pork cracklings will run as high as 25 per cent grease.

The moisture content is around 2 to 4 per cent.

The percentage of protein depends entirely upon the kind of raw material rendered and the amount of bone included. The protein content will range from 50 to 72 per cent.

Frozen vs. Fresh Ham Cure

Do frozen hams cure in less time than fresh hams? A Southern packer says:

Editor The National Provisioner:

Do hams that have been frozen take a cure more quickly than fresh cut hams?

We had a lot of frozen hams that were taken out of cure in 60 days and another lot of fresh hams that were put down at the same time and pulled on the same date. The hams that had been frozen were extremely salty, while the fresh hams were just right. Both lots were given the same soaking.

Frozen hams will cure in one-third to one-fourth less time than fresh hams. This doubtless accounts for the saltiness of which this inquirer complains.

Frozen hams are cured in the same strength pickle and handled in the same way as the fresh product, the only difference being the shorter time in cure.

Some packers take their hams out of the freezer and put them right into the pickle, using pickle of 60 to 70 degs. temperature instead of the usual cold pickle. This increases the rapidity with which the hams are defrosted.

Horse Meat Slaughter

A meat curer and provision dealer asks if he could buy and cure horse meat for export. He says:

Editor The National Provisioner:

We would appreciate any information you could give us regarding cured horse meat for export.

Could we buy the cured product from horse slaughtering establishments which have federal inspection and then proceed to export it?

What are the government regulations and restrictions concerning the exporting of horse meat and horse meat products?

Could we establish a horse slaughtering plant, and if so would federal inspection be necessary before the product could be exported?

Under federal regulations no horse may be slaughtered or horse meat products prepared at establishments which prepare under federal inspection meat or meat food products derived wholly or in part from the carcasses of cattle, sheep, hogs and goats.

Horse meat for export must be prepared under federal inspection.

At present there are at least five horse slaughtering plants in the United States operating under federal inspection. These plants are established under the provisions of a law enacted in 1919. There are a number of rendering establishments in this country that slaughter horses for inedible purposes only, and it is probable that there is no federal inspection there.

Very little horse meat is consumed in this country, although some of it is sold to foreigners resident here who are in the habit of consuming such meat. Shops handling horse meat cannot handle other meats.

If this inquirer contemplates entering this business for the purpose of exporting the product, or preparing the meat for human consumption, it is suggested that he communicate with the Chief of the U. S. Bureau of Animal Industry, Washington, D. C., who will send regulations covering this activity.

Before undertaking such a proposition it would be well to insure a supply of raw material.

Just at present large numbers of wild horses from the ranges are being slaughtered. With the rapid decline in the use of horses in this country there is little assurance of a continuing supply for slaughter, unless arrangement is made to produce the wild horses of the range, which are far more desirable for this purpose than the domesticated animal. This practice is being followed by some companies producing horse products on a large scale.

Efficient Grease Saving

In a small slaughtering plant, what is the best way to save grease that would otherwise go into the sewer? An Eastern packer writes regarding this as follows:

Editor The National Provisioner:

We are operating a small plant and have installed a catch basin which is supposed to take care of such fats as may enter the sewers. This fat all goes through the basin, but we do not collect as much of it as we think we should. Can you give us an economical layout for a basin?

It is hardly practical for a very small plant to attempt to design and build a catch basin for grease recovery. The more efficient and economical method would be by means of a good grease trap. If correctly designed, these devices are clean, sanitary and efficient. They can be supplied by the packinghouse equipment companies advertising in The National Provisioner.

Do you use this page to get your questions answered?

Smokehouse Grease— A Fire Hazard

How often do you clean the walls of your smokehouse?

Grease accumulations on smokehouse walls has been found to be one of the chief fire hazards in many packing plants.

Not long ago a packing plant suffered a heavy fire loss. Investigation proved the fire started in the smokehouse.

And the cause was this: *Grease covered the smokehouse walls over an inch thick.*

Both this fire loss and the loss of business during rebuilding could have been avoided simply by cleaning the smokehouse walls at regular, frequent intervals.

How long ago was this done in your plant?

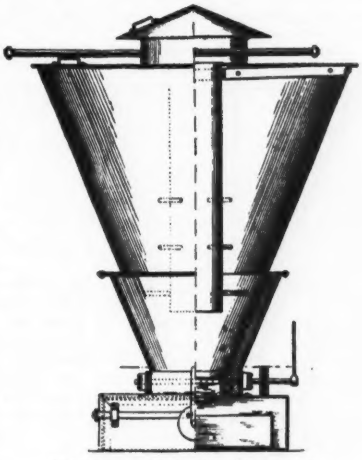
Operating Pointers

For the Superintendent, the Engineer, and the Master Mechanic

SMOKE WITHOUT SOOT.

A smoke-producing device for use in smoke houses, in which sparks, soot and ashes are filtered out and do not come in contact with the meat, is the subject of patent No. 1,694,163, issued recently.

In general the smokebox consists of a conical hopper lined with fire brick, and has a shaking grate in an air-tight ash pit. Stuffing boxes prevent the escape of gases around the grate bearings.



SMOKE PRODUCING DEVICE.

The smoke is filtered through unburned sawdust and all sparks, soot and ashes removed. Combustion is maintained with air under pressure.

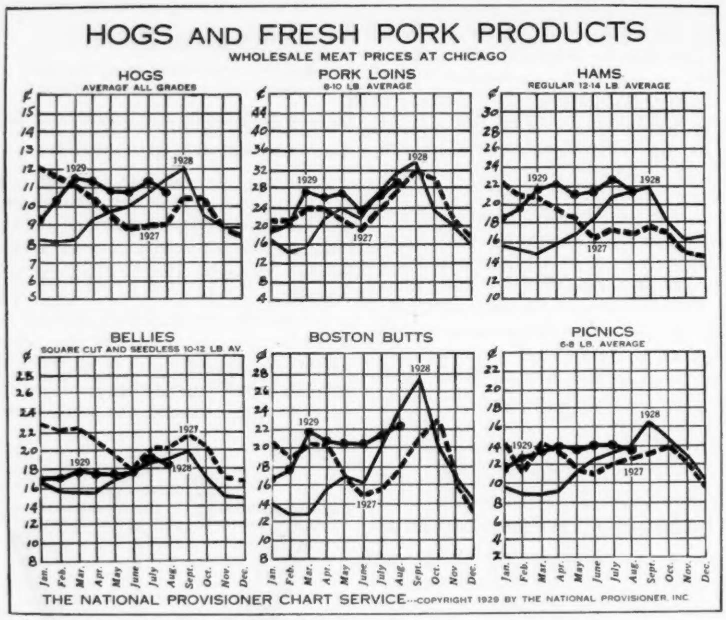
The smoke tube extends from the top of the device into the lower part of the conical hopper. In operation the box is started with live coals and the hopper filled with sawdust.

Combustion is maintained by air under pressure. This is admitted to the ash pit, the rate of combustion being regulated by the amount of air supplied.

As fast as the smoke is formed it passes upward through the unburned sawdust, where all sparks, soot and ashes are filtered out. The patent has been assigned to Swift & Company.

BRITISH HOG POPULATION.

A decline of 20 per cent in the hog population of England and Wales is noted in a report issued by the Ministry of Agriculture and Fisheries under date of August 6, 1929. The number of sows kept for breeding purposes is reduced by 73,200 or 19 per cent while other pigs show a decrease of 533,300 or 21 per cent. In 1928 the hog population had practically reached the record year of 1924, but the reduction shown in the 1929 figures is the heaviest since 1892.



These charts in THE NATIONAL PROVISIONER MARKET SERVICE series show the trends of prices of fresh and cured pork products and live hogs at Chicago during the first eight months of 1929, compared with those of the two previous years.

Fresh pork product prices have continued strong throughout much of August, pork loins being in good demand in spite of the intense heat and the competition offered by "ready-to-serve" meats. Cured product has been in a less favorable position, and at many times has moved at decidedly unsatisfactory price levels.

Fresh Pork Products.

Pork Loins.—The pork loin market was strong throughout the month, in keeping with that for other fresh pork cuts. Prices have held at high levels and the loin market has been well cleaned up. Stocks of frozen loins, with the possible exception of a few cars dating back to last spring, are practically exhausted.

Hams.—The market has shown some weakness, dropping for the month as a whole an average of 1c per pound and below the price level of July. Light hams have been in small supply, and the season is rather late for putting heavy hams in cure for boiling purposes later. The situation has been slow on the cured product, and the export outlet has been unsatisfactory. In general, buying has been discouraged and much lower price levels reached.

Bellies.—Green bellies, square cut and seedless, have proved relatively firm, despite the weakness in the surrounding markets. There has been a general scarcity of offerings of the lighter averages. The mediums and heavies have been pressing on the market somewhat, due entirely to the class of hogs being received.

Boston Butts.—This product has ruled strong, with an active demand from the small jobbing trade and a very good movement in straight cars at strong prices. The same situation has applied to boneless butts.

Picnics.—A slightly lower trend in prices of this product has been evident, with considerable selling pressure in some directions, these distress sales being responsible for lower quotations. However, the market has recovered some of the loss and demand appears to be more active for both the green and the pickled product.

Cured Pork Products.

S. P. Hams.—Prices of pickled hams declined quite rapidly during the latter part of August, due to slow demand. This decline has been more drastic on the heavier averages. Light and medium averages have been relatively high for smoking purposes, and the trade failed to follow. There has been practically no export trade as prices abroad were below the parity here.

S. P. Bellies.—Practically all of this product has moved through smokehouse channels with little outside demand. There has been a little jobbing trade on the dry cured product.

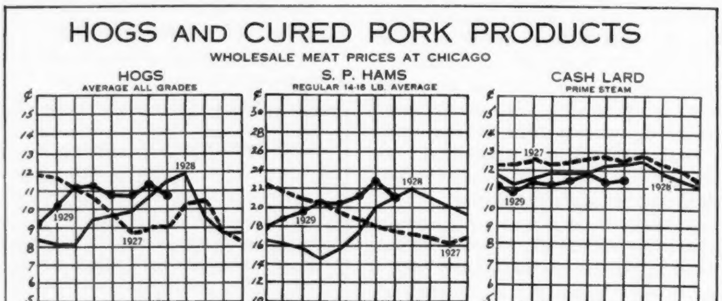
D. S. Bellies.—Dry salt bellies have been in slow demand and accumulations are noted at several of the principal packing centers. While prices held fairly well during the month as a whole, there was a rather drastic break at the close. There appears to have been little reason for the break, particularly on the lighter averages, which are rather scarce. Weakness in the seller's outlook would seem to account for the lower selling prices rather than any factor in the market situation.

D. S. Fat Backs.—There has been a fairly active trade in fat backs both in the domestic and export market. However, the accumulation of this product at the end of the month showed considerable increase. Some recovery in price was noted during the month, and the market appears fairly steady.

Lard.—Little fluctuation was evident in the lard market during August, prices holding at the lower levels reached in July. Only a fair trade was reported, which is not unusual at this season of the year. Heavy consignments abroad resulted in a very substantial decrease in stocks recently.

Hogs.—Hog prices during August reached lower levels and were nearer those of the early months of the year. While receipts at the 11 principal markets were considerably smaller than in July, they were nearly 300,000 head larger than in August a year ago. The average price paid during the month at Chicago was $10.70, compared with $11.30 in July and $11.50 in August a year ago.

Either hogs have been costing packers too much or they have not been getting enough for their cured product. Had the cured meats moved with the same facility, and at as good price levels as the fresh, there would be little cause for a poor showing.



Provision and Lard Markets

WEEKLY REVIEW

Trade Quiet — Markets Easier — Hog Movement Fair—Hog Prices Rather Heavy—Slaughtering in Excess of Last Year.

The developments in the hog market during the week have shown the influence of more liberal receipts, with an easier tone to the market. This has been reflected in the product market, although there has been no serious recession in values. The figures on hog packing for the week show a total of 430,000, compared with 454,000 the previous week and 329,000 last year. The summer season to date shows a total of 13,197,000, against 15,734,000 last year. The present figures show a decrease of 2,537,000 compared with a year ago. At the beginning of July the decrease was 2,839,000 so that in the two months the decrease in the movement of hogs has been reduced quite a little.

The report of the U. S. Bureau of Markets for the six months ended with June showed a total inspected slaughter of 25,175,000, against 27,807,000 last year, a decrease of 2,632,000. At one time during the early part of the year the situation looked very much like a possible decrease in the movement of over 3,000,000 hogs, but with the recent tendency it is quite possible that the decrease will be much under that figure.

The monthly statement of stocks of products at Chicago showed a decrease of nearly 14,800,000 lbs. of contract lard, and a decrease of 14,098,000 lbs. in all kinds of lard, the total amounting to 97,230,000 lbs., against 104,399,000 lbs. last year. Contrary to expectation, there was an increase in the total stock of clear bellies, with the total of this quality 5,493,000 lbs. more than a year ago. The total stock of all meats decreased a little over 11,000,000 lbs. for the month, but shows an increase of 14,800,000 lbs. compared with last year.

The report of the U. S. Bureau of Agricultural Economics for June and six months ended with June shows very interesting figures in the production of meats and meat products. With a slaughter of cattle and calves slightly under last year, there has been a small decrease in the production of beef and veal, while with the large decrease in hog slaughter there has been a decrease of 434,000,000 lbs. of hog products, with a small increase in the production of mutton.

Domestic Consumption Less.

As the export of products show a small increase of lard and about a stand-off in exports of meat, the material reduction in the stock of product would seem to be in order. The total stock of meats is in excess of last year, and the stock of lard in excess of last year. The figures tend very strongly to confirm a belief that the domestic distribution must be decreasing. In view of the natural increase in the population it is rather difficult to make any other conclusions.

Compared with the three-year average, the production of beef showed a decrease of 249,000,000 lbs. and the production of veal a decrease of 25,000,000 lbs. Production of hog products shows an increase of 107,000,000 lbs. and of mutton an increase of 12,000,000 lbs. This is a distinct net decrease when compared with the previous three-year average production and seems to offer rather conclusive ground for belief in a decreasing domestic distribution. Compared with last year, the production of beef shows a decrease of 48,000,000 lbs.; veal, 7,000,000 lbs.; pork, 432,000,000 lbs.; mutton shows an increase of 9,000,000 lbs.

The export movement of products is showing an increasing tendency in lard and bacon. For the eight months, lacking one week, the lard export show an increase of 38,000,000 lbs. over last year and there has been a gain in the exports of bacon of 7,000,000 lbs. The exports of hams and shoulders show a decrease of 2,000,000 lbs., while the pork exports increased 7,000,000 lbs. This is a total increase of 50,000,000 lbs.

PORK—The market in the East was quiet but very steady. Mess pork at New York was quoted at $30.50; family, $37.50; fat backs, $24.00@26.50.

LARD—A fair domestic trade and a moderate export interest was reported at the seaboard. At New York, prime western was quoted at $12.60@12.70; middle western, $12.50@12.60; city, 12⅛@12¼c; refined continent, 13¼c; South America, 13⅝c; Brazil kegs, 14⅝c; compound, car lots, 11¼c; smaller lots, 11½c. At Chicago, regular lard in round lots was quoted at September price; loose lard, 25c under September; leaf lard, 50c under September.

BEEF—The market at New York was steady with a moderate demand. Mess was quoted at $26.00; packet, $26.00@27.00; family, $28.00@29.00; extra India mess, $42.00@44.00; No. 1 canned corned beef, $3.10; No. 2, 6 lbs. South America, $16.75; pickled tongues, $75.00@80.00 per barrel.

See page 38 for later markets.

EUROPEAN PROVISION CABLES.

The market at Hamburg was steady the past week, according to cable advices to the U. S. Department of Commerce. Receipts of lard for the week were 927 metric tons. Arrivals of hogs at 20 of Germany's most important markets were 76,000 at a top Berlin price of 19.47c per lb., compared with 89,000 at 17.30c per lb. the same week last year.

The Rotterdam market shows little alteration.

The market at Liverpool was rather quiet.

The total of pigs bought in Ireland for bacon curing was 27,000 for the week compared with 28,000 last year.

The estimated slaughter of Danish hogs for the week ended August 30 was 87,000, compared with 86,300 the same period last year.

Meat and Lard Stocks

More meat and less lard appears to be on hand at the seven principal markets of the country than was in storage at this time a year ago. While August recorded substantial declines in stocks, a situation particularly satisfactory in view of heavy hog runs, these stocks are well above those of a year ago.

Only in the case of S. P. skinned hams and stocks of "other" lard are increases shown for the month just ended.

While total sweet pickle meats declined nearly 15,000,000 lbs. during the month, the stocks are approximately 17,000,000 lbs. over those of September 1, 1928. The greatest increase from last year is in skinned hams and to a less extent in picnics and bellies. Stocks of regular hams are about the same.

Dry salt belly stocks are less than a month and a year ago. Fat back stocks declined approximately 3,500,000 lbs. during the month, but are more than 4,000,000 lbs. over those of a year ago.

In spite of the heavy production of lard throughout the summer, lard stocks are some 15,000,000 lbs. under those of a month and a year ago.

While a sharp decline in hog runs has been looked for throughout the summer, a let-up—even though less than expected—is pretty sure to come. So packers should not feel it necessary to crowd cured stocks on the market at prices ruinous to profitable annual returns.

A level-headed policy during September and October, one which will insure the movement of product without sacrifice, will aid the year's showing materially.

Stocks at Chicago, Kansas City, Omaha, St. Louis, East St. Louis, St. Joseph and Milwaukee, on August 31, 1929, with comparisons, as especially compiled by THE NATIONAL PROVISIONER, are reported as follows:

	Aug. 31, 1929.	July 31, 1929.	Aug. 31, 1928.
Total S. P. meats..	182,546,481	197,216,288	165,273,965
Total D. S. meats..	78,655,756	84,064,737	76,933,160
Total all meats.	279,416,598	303,910,164	258,789,011
P. S. lard	98,533,026	114,405,264	118,770,204
Other lard	29,606,079	27,887,987	24,185,611
Total lard	128,139,105	143,193,251	142,955,815
S. P. reg. hams	55,888,481	61,345,947	55,292,220
S. P. sknd. hams	52,056,335	51,606,365	37,721,884
S. P. bellies ..	54,262,259	58,655,016	57,337,163
S. P. picnics ..	19,876,456	24,712,679	14,288,311
D. S. bellies ..	61,290,792	62,780,498	62,959,921
D. S. fat backs	14,332,395	17,877,365	10,173,511

Packers' Provision Stocks

Slight increases in stocks of meat and lard on hand August 31, 1929, over those reported as of August 17, are noted by the Institute of American Meat Packers as the result of reports of 89 member companies. These include 22 of the 25 largest, and represent 75 per cent of the industry.

Total stocks of pork, cured, curing,

and frozen for cure, including lard, on August 31, 1929, were 2.1% more than two weeks before; 7.7% more than a year ago.

Total stocks, excluding lard, were 1.2% more than two weeks before; 6.5% more than a year ago.

There has been no important change in total stocks of pork products during the last two weeks of August. Dry salt cuts increased 3.5 per cent during this period; stocks of sweet pickled and dry cured cuts increased 4.5 per cent; stocks of frozen cuts decreased 11.7 per cent. Combined stocks of sweet pickled, dry cured, and frozen cuts have changed less than ½ of 1 per cent. Lard stocks increased 6.6 per cent during the two weeks.

Total stocks are now larger than a year ago, and most individual items show the same tendency. Dry salt cuts are 3.6 per cent above last year; sweet pickled and dry cured cuts 10.5 per cent above last year; frozen cuts 2.0 per cent below a year ago. Combined stocks of sweet pickled and frozen cuts are 7.4 per cent greater than a year ago. Lard stocks reported to the Institute are 14.5 per cent greater than a year ago.

Changes in the individual products are shown in the table below. Stocks of hams have shown a tendency to increase and are now heavier than a year ago. Stocks of bellies and picnics have declined moderately, though picnics are still on hand in considerably larger quantities than last year. The stock of dry salt fat backs is also much heavier than last year.

Hog Slaughter.

Federally inspected hog slaughter at 9 principal markets for the five weeks ending August 31, 1929, was 1,776,000 head compared with 1,298,000 head in the same period of 1928.

This is an increase of 37 per cent over last year. Receipts at 20 markets, however, show an increase of only 20 per cent for the same period. From the two sets of figures, it may be estimated that total federally inspected slaughter for August was about 3,300,000 head.

Total federally inspected hog slaughter for the hog year to date (November 1 to August 31, inclusive) was approximately 42,300,000 head compared with 41,900,000 slaughtered in the same period of 1927-1928.

If the August, 1929, estimate is correct, slaughter for this year to date is about one per cent greater than in the same months of last year.

It appears from tentative hog slaughter estimates and provision stocks reports to the Institute that the exceptionally heavy receipts of hogs during the last two weeks of the month have resulted in an interruption of the decline in provision stocks which has been going on for a number of months. During the month of August as a whole, however, provision stocks apparently declined approximately 10 per cent, which is about the average decrease for the month. Considering the fact that slaughter for the month was substantially above normal, it seems reasonably evident that consumption was at a high rate, as for several months previous.

On the basis of reports to the Institute, it may be estimated that total stocks of pork products, exclusive of lard, were approximately 730,000,000 pounds on August 31, 1929, as compared with 683,000,000 pounds last year, 767,000,000 pounds in 1927, 623,000,000 pounds in 1926, and 583,000,000 pounds in 1925.

Provision stocks at the end of August as reported to the Institute of American Meat Packers, were as follows:

(Figures in thousands of pounds, 000 omitted.)

	Aug. 31, 1929.	Aug.17,* 1929.	Sept. 1, 1928.
Dry Salt Meats:			
Bellies	82,840	77,547	87,681
Fat backs	22,356	22,500	15,139
All other dry salt cuts	21,743	22,558	19,747
Total D. S. meats	126,939	122,605	122,567
S. P. and Dry Cured Meats (cured and in cure):			
Regular hams	87,694	87,059	93,134
Skinned hams	98,562	92,622	74,559
Picnics	30,581	30,502	25,358
Bellies	61,323	55,597	59,559
All other S. P. and dry cured cuts	19,527	19,012	16,898
Total S. P. and dry cured meats	297,687	284,792	269,508
Green Frozen Meats (for cure):			
Regular hams	2,888	3,402	4.756
Skinned hams	1,671	1,634	1,040
Picnics	3,873	5,002	726
Bellies	67,933	77,202	74,859
All other pork frozen for cure (not incl. pork loins, etc.)	8,188	8,464	4,853
Total frozen meats	84,553	95,704	86,234
Total all meat cuts	509,179	503,101	478,309
Lard	105,068	98,609	91,778
Grand total, incl. lard	614,247	601,710	570,087

*Revised.

THE AUGUST MEAT TRADE.

A marked improvement in the demand for fresh pork featured the meat trade during the month just closed, according to a review of the live stock and meat situation issued by the Institute of American Meat Packers. The demand for smoked meats was fairly good, but the dressed beef trade, although showing some improvement as compared with July, was somewhat unsatisfactory.

The export demand for both meats and lard was rather quiet during the month.

In the domestic market, a relatively large volume of fresh pork moved into consumption. Wholesale prices of all fresh pork cuts advanced somewhat immediately after the first of the month, and remained relatively steady during the last three weeks.

Wholesale prices of bacon and smoked picnics remained about steady during the month, but there was a slight decline in prices of hams. The demand for hams was somewhat slow during part of the month. The bacon trade improved further towards the end of the month.

The demand for lard in the domestic market was better than in the preceding month. The demand for both boiled hams and sausage continued reasonably good.

Hide prices were higher than in the previous month, and stocks of hides were lighter.

BRITISH PROVISION CABLE.

(Special Cable to The National Provisioner.)

Liverpool, Sept. 5, 1929.—General provision market rules quiet with a very limited trade. Hams, square shoulders and lard, very poor; picnics, no demand. Spot market shows a declining tendency.

Friday's prices were as follows: Hams, American cut, 105s; Liverpool shoulders, square, 69s; hams, long cut, 108s; picnics, 76s; short backs, 93s; bellies, clear, 83s; Canadian, 102s; Cumberland, 83s; spot lard, 63s.

LIVERPOOL PROVISION STOCKS.

Stocks of provisions on hand at Liverpool on Sept. 1, 1929, with comparisons, as estimated by the Liverpool Provision Trade Association, were as follows:

	Sept. 1, 1929.	Aug. 1, 1929.	Sept. 1, 1928.
Bacon, lbs.	5,099,920	6,153,840	3,766,448
Hams, lbs.	1,854,608	1,633,968	1,405,936
Shoulders, lbs.	441,168	522,256	218,400
Lard, tierces	664	448	417
Lard, refined, tons	5,746	6,421	4,163

DANISH BACON EXPORTS.

Exports of Danish Bacon for the week ended Aug. 31, 1929, amounted to 4,730 metric tons, compared with 4,791 metric tons the same week of 1928.

Tallow and Grease Markets

WEEKLY REVIEW

TALLOW—An extremely quiet situation prevailed in tallow in the East the past week. The holidays interrupted business, and later in the week the markets apparently had not as yet overcome the holiday feeling. There was a moderate volume of inquiry from consuming quarters at the previous sales levels, but offerings were more steadily held. Buyers and sellers were slightly apart and little in the way of actual business materialized. Bids of 7⅝c f.o.b. for extra were reported in the market at New York, but sellers were asking ⅛c more. Some of the leading packing interests were reported holding for 8c.

The indications were that the market position had been strengthened by the recent declines, but buyers, as yet, were not willing to pay up for supplies. As a result both sides were looking on. Some in the trade are anticipating a better demand a little later on, and the feeling appeared to be slightly more friendly towards values.

At New York, special was quoted at 7⅜c; extra, 7⅝@7¾c; edible, 8¾@9c. At Chicago, there was a moderate volume of interest and a rather steady tone, with good inquiries at times for prime packer. Offerings were light. At Chicago, edible was quoted at 8¾c; fancy, 8⅝c; prime packer, 8½c; No. 1, 8c; No. 2, 7¾c.

At the London auction, there were 1,303 casks offered and only 195 sold. Prices were unchanged to 3d lower than the previous sale. Mutton was quoted at 40@41s 6d; beef, 39s 6d@43s; good mixed, 36s 6d@39s 6d. At Liverpool, Australian tallow was easier and unchanged to 6d lower. Fine was quoted at 41s 3d and mixed quoted at 39s 3d.

STEARINE—The market throughout the week was quiet and about steady, with oleo at New York quoted at 10¾c. At Chicago the market also was rather dull but steady, with oleo quoted at 10¼@10½c.

OLEO OIL—The market was steady and interest largely routine. At New York, extra was quoted at 10⅞@11¼c; medium, 10⅛@10⅝c; lower grades, 9⅞c. At Chicago, extra was quiet and steady and quoted at 10½c.

See page 38 for later markets.

LARD OIL—While the market ruled steady, buying was of a hand to mouth character. At New York, edible was quoted at 15¼c; extra winter, 14¾c; extra, 12½c; extra No. 1, 12c; No. 1, 11¾c; No. 2, 11½c.

NEATSFOOT OIL — Buying was again small and routine, but the market was steady. Pure at New York was quoted at 14½c; extra, 12¼c; extra No. 1, 12c; cold test, 18¼c.

GREASES—The market for greases the past week was rather inactive, with a holiday feeling still in the air and the trade marking time pending developments. While some small routine operations were reported, little or nothing of importance appeared to have passed, and buyers and sellers were slightly apart. Offerings, however, were more steadily held, but consumers did not appear inclined to pay up for supplies. While some were anticipating a better demand, owing to the continued warm weather over the country, the buyer apparently was in a well bought-up position. At the same time, there was a tendency to go slow and await the action in tallow. In some quarters there was a tendency to stress the relative cheapness in some of the oils.

At New York, superior house was quoted at 7⅜c; choice house, 7@7⅛c; yellow, 7@7⅛c; A white, 7⅝c; B white, 7⅜c; choice white, 8⅝@8⅞c. At Chicago, trading was rather quiet in choice white, but medium and low grade greases were steady with a moderate demand. At Chicago, brown was quoted at 6¾c; yellow, 7@7⅛c; B white, 7½c; A white, 7¾c; choice white, all hog, 8⅛@8¼c.

By-Products Markets

Chicago, Sept. 5, 1929.

Blood.

The market on blood is a little easier, and no trading of any consequence is taking place. The market is nominally $4.85@5.00 per unit of ammonia, Chicago.

	Unit Ammonia.
Ground and unground	$4.85@5.00

Digester Feed Tankage Materials.

Market on digester feeding tankage is strong, good volume of trading reported, mostly at $5.25 & 10c, f.o.b. Chgo., some sales at $5.35 & 10c. Special feeding steam bone meal in good demand.

	Unit Ammonia.
Ground, 11½ to 12% ammonia	$ 5.25@ 5.35 & 10
Unground, 11½ to 12% ammonia	5.10@ 5.25 & 10
Ground, 6 to 8% ammonia	4.60@ 4.85 & 10
Unground, 6 to 8% ammonia	4.40@ 4.65 & 10
Liquid stick	3.85@ 4.10
Steam bone meal, special feeding, per ton	42.00@45.00

Fertilizer Materials.

Very good business reported in fertilizer materials; inquiry also strong with good movement of stocks. Prices are unchanged.

	Unit Ammonia.
High grd. ground, 10@11% am.	$ @ 3.75 & 10
Low grd., and ungr., 6-9% am.	@ 3.50 & 10
Hoof meal	3.50@ 3.75
Bone tankage, low grd., per ton	24.00@25.00

Bone Meals (Fertilizer Grades).

Bone meal situation remains steady and quiet; prices unchanged from previous quotations.

	Per Ton.
Raw bone meal	$50.00@55.00
Steam, ground, 3 & 50	31.00@32.00
Steam, unground, 3 & 50	29.00@31.00

Cracklings.

Demand for cracklings has improved substantially in past week. Sales reported in good volume, demand generally better, on basis $1.15 to $1.20, Chicago and Mid-West, per unit protein content.

	Per Ton.
Hard pressed and exp. unground, per unit protein	$ 1.15@ 1.20
Soft prsd. pork, ac. grease & quality	75.00@80.00
Soft prsd. beef, ac. grease & quality	55.00@60.00

Gelatine and Glue Stocks.

Gelatine and glue stocks market continues steady, with supplies light, little offered and fair trading reported by those who have product to sell.

	Per Ton.
Kip and calf stock	$38.00@42.00
Hide trimmings	30.00@33.00
Horn piths	42.00@43.00
Cattle jaws, skulls and knuckles	42.00@42.50
Sinews, pizzles	31.00@35.00
Pig skin scraps and trim., per lb.	@5c

Horns, Bones and Hoofs.

	Per Ton.
Horns, according to grade	$75.00@150.00
Mfg. shin bones	56.00@130.00
Cattle hoofs	45.00@ 47.00
Junk bones	27.00@ 28.00

(Note—Foregoing prices are for mixed carloads of unassorted materials indicated above.)

Animal Hair.

Very quiet market for animal hair at present, with no trading reported in past week and prices more or less nominal.

Coil and field dried	2 @ 2½c
Processed grey, summer, per lb.	4 @ 5c
Processed grey, winter, per lb.	6 @ 6½c
Cattle switches, each*	4½@ 5½c

*According to count.

BOSTON MEAT SUPPLIES.

Receipts of Western dressed meats and local slaughters under federal and city inspection at Boston for the week ended Aug. 31, 1929, with comparisons:

Western dressed meats:	Week ended Aug. 31.	Prev. week.	Cor. week, 1928.
Steers, carcasses	2,331	2,480	2,163
Cows, carcasses	1,401	1,405	1,739
Bulls, carcasses	40	30	51
Veals, carcasses	891	1,059	1,067
Lambs, carcasses	19,183	18,205	13,331
Mutton, carcasses	1,494	1,062	1,005
Pork, lbs.	402,679	519,398	146,433
Local slaugthers:			
Cattle	1,303	1,141	1,637
Calves	1,280	1,372	1,553
Hogs	9,808	9,983	8,322
Sheep	7,227	7,774	5,704

PHILADELPHIA MEAT SUPPLIES.

Receipts of Western dressed meats and local slaughters under city and federal inspection at Philadelphia for the week ended Aug. 31, 1929:

Western dressed meats:	Week ended Aug. 31.	Prev. week.	Cor. week, 1928.
Steers, carcasses	2,401	2,139	2,175
Cows, carcasses	695	716	928
Bulls, carcasses	311	220	607
Veals, carcasses	1,323	1,149	1,813
Lambs, carcasses	9,871	8,539	9,952
Mutton, carcasses	1,640	1,665	1,155
Pork, lbs.	357,995	362,577	242,909
Local slaughters:			
Cattle	1,435	1,254	1,392
Calves	2,192	1,769	1,584
Hogs	12,099	13,756	13,662
Sheep	7,425	6,467	5,002

SHORTENING AND OIL PRICES.

Prices of shortening and salad and cooking oils on Thursday, Sept. 5, 1929, based on expressions of member companies of the Shortening and Oil Division of the Interstate Cottonseed Crushers Association, were as follows:

Shortening.

North and Northeast:		Per lb.
Carlots, 26,000 lbs.		@11¼
3,500 lbs. and up		@11½
Less than 3,500 lbs.		@12
South:		
10,000 lbs.		@11
Less than 10,000 lbs.		@11½
Pacific Coast:		@11¾

Salad Oil.

North and Northeast:		
Carlots, 26,000 lbs.	11	@11¼
5 bbls. and up		@11½
1 to 4 bbls.	12	@12¼
South:		
Carlots, 26,000 lbs.		@11
5 bbls. and up	11¼	@11½
1 to 4 bbls.	11½	@11¾
Pacific Coast:	11¼	@11½

Cooking Oil—White.

⅛c per lb. less than salad oil.

Cooking Oil—Yellow.

¼c per lb. less than salad oil.

NEW ORLEANS OIL TRADING.

(Special Report to The National Provisioner.)

New Orleans, La., Sept. 3, 1929.—A good deal of activity was demonstrated in the New Orleans cottonseed oil market the past week, due to the increasing belief by traders that the government estimate to be issued September 9 would be materially reduced. This was confirmed by private forecasts which predict a yield of 14,675,000 to 15,050,000 bales.

Texas seems to be the chief sufferer from deterioration, although Oklahoma's production is being reduced and other states report probable reductions. These are small, except for Mississippi, where the reduction can reach serious proportions. In the Atlantics, Georgia and South Carolina estimates will have to be raised probably 20 to 25 per cent, and North Carolina may be slightly increased.

Buying orders in January and March (the new contract) predominated, with some speculative demand for December. October will be a spot position soon, but values are considered mildly bullish.

The carryover of 916,000 bbls. is not large when considering the average monthly consumption during the past season of 303,115 bbls., which makes the carryover about three months' supply.

LARD AND GREASE EXPORTS.

Exports of lard from New York City, Aug. 1 to Sept. 1, 1929, totaled 26,702,853 lbs.; tallow, none; greases, 1,122,000 lbs.; stearine, 16,225 lbs.

MEMPHIS PRODUCTS MARKETS.

(Special Report to The National Provisioner.)

Memphis, Tenn., Sept. 4, 1929.—Cottonseed opened firm at a little above last night and were rapidly bid up as trading progressed, November selling at $40.00 and December $41.50, with these figures obtainable on the close, and $42.00 bid for January. Strength was almost entirely a reflection of upturn in meal, as cotton, grain and oil were easier.

Crop news continues unfavorable and private estimates are mostly running under fifteen million bales. If the government report comes about in line with an average of the private estimates, it is thought that seed will at least hold present values, and probably be advanced considerably if movement is not free at present levels.

Short covering started cottonseed meal higher at the opening, and prices were bid up rapidly to $40.75, later $41.00 and finally $41.50 for the active new crop positions. December just before the close selling up to $14.75, but at the level some trading was possible, and sellers more interested. Trade buying is still not in the volume that could be wished for, but the futures are not out of line with spot values.

HULL OIL MARKET.

Hull, England, Sept. 4, 1929.—(By Cable.)—Refined cottonseed oil, 35s 3d; Egyptian crude cottonseed oil, 33s.

Vegetable Oil Markets

WEEKLY REVIEW

Market Moderately Active—Further Gains Scored—Dryness Western Belt Continues — Crude Strong — Cash Trade Quiet—Lard Stocks Decreasing—Sentiment Mixed—Crop Estimates Lowered.

A fairly good turnover featured cotton oil futures on the New York Produce Exchange the past week, the market showing a fair amount of activity most of the time, and a rather firm tone. At the high point prices were up 50 to 60 points from the season's lows, which was followed by a moderate setback.

Commission house trading continues very mixed, but most of the time there was little or no pressure on the market. What selling materialized appeared to be on a scale up on resting orders, or profit-taking on the advances as well as a little hedge pressure, but the latter was very light in volume.

The buying was of a scattered nature as well, coming from local Western and Southern sources, and while not readily following advances, the absorption was persistent enough to unsettle professional shorts and bring about a covering movement.

No further tenders made their appearance on September contracts, but neither this nor other routine news counted for much. Quite a little realizing developed the middle of the week when it was evident that some change in sentiment had taken place, owing to the reduction in the short interest and a tendency to even up to await developments.

Weather Still Is Large Factor.

To a very large extent the further gains were again traceable to unfavorable weather conditions in the South and a further lowering of crop estimates by the trade. The dryness in the Western belt was in the main unrelieved and creating increasing apprehension, while the latest of the estimates on the cotton crop ranged from 14,998,000 bales down to as low as 14,650,000 bales.

As a result, climatic conditions continued to attract most attention in speculative quarters and there was quite a little apprehension as to what the next government report might show.

The weekly weather report as a whole read somewhat unfavorably, but apparently was not as bullish as the trade had anticipated, which served to check buying power and bring about some liquidation on the part of pit longs. The ring crowd in the main followed the advance in cotton, and became disturbed when the latter market showed a tendency to react.

The lard market displayed a fairly steady tone, but there was little or nothing in that quarter to encourage those operating on the constructive side of oil, other than the fact that during August the Chicago lard stocks decreased 14,101,000 lbs. to a total of 97,227,000 lbs., compared with 104,399,000 lbs. at this time a year ago.

Statistics on oil and the lard situation, however, at this season of the year, have very little influence, the prime factor being the progress of the new crop in that the most important factor, prevailing at this season is the possible new crush of oil.

In well versed quarters, a crop well below the 15,000,000 bales figure is looked upon as placing oil in a two-sided position, whereas a crop upward of 15,000,000 bales would make for another season of more than sufficient oil supplies for all requirements, and leave a safe carryover at the end of the season.

Cash trade during the week again proved to be more or less routine and of small volume. Distribution against old orders, however, was reported on a satisfactory scale, and the outlook was that the August consumption would prove rather liberal, with estimates running at 300,000 bbls. and upward, compared with about 299,000 bbls. in August last year.

A firm tone prevailed in the cash oil market, partly the result of strength in the crude situation. In the Southeast, crude oil advanced to 7⅞@8c, while in the Valley and Texas, sales were reported at 8c with indications that only moderate quantities were changing hands.

Crude at Present Quiet.

The crude market as yet has not cut much figure on futures, although the time is rapidly approaching when the developments in crude will prove one of the dominating influences.

With a government cotton report due in the near future, it would not be surprising to see a quieter trade for a time. However, there is every indica-

SOUTHERN MARKETS

New Orleans.

(Special Wire to The National Provisioner.)

New Orleans, La., Sept. 5, 1929.—Lard and New Orleans cotton oil futures are selling at practically the same prices as a week ago, notwithstanding many private estimates as to the reducing size of cotton crop. Today's rains in Louisiana, Texas and Oklahoma caused crude buyers to reduce bids from 7⅞c to 7⅝c, after securing sundry lots at 7¾c, f.o.b. mills, and Tuesday at 8c Valley. With active and widespread demand for bleachable at 8¾c, loose, New Orleans, crude is not apt to decline much further in the near future, especially if August consumption exceeds 300,000 barrels and September-October consumption equals same months last year as now. It is probable, on the other hand, that we will see temporary advances, although it looks like 7c crude or lower by November if the crop is around 15,000,000 bales. Future market is dull, with very little hedge selling for new season thus far.

Memphis.

(Special Wire to The National Provisioner.)

Memphis, Tenn., Sept. 5, 1929.—Sales of crude in the Valley this week were made at from 8c down to 7¾c. The mills in the Memphis territory will start crushing between September 15 and September 20. Loose cottonseed hulls, $6.00; forty-one per cent meal, $41.50, f.o.b. Memphis.

Dallas.

(Special Wire to The National Provisioner.)

Dallas, Tex., Sept. 5, 1929.—Prime cotton seed, $34.00; prime crude oil, 7⅝@7¾c; 43 per cent cake and meal, $41.00; hulls, $10.00; mill run linters, 3¼@4c.

tion that the crop figure will be lower than the previous month, and whether or not the market discounted any reduction that may be made remains to be seen.

Refiners have been on the buying side, of both the nearby and late this year deliveries, while the outlook is that it will be at least another month or so before the market will encounter any particular selling against the movement of new crop oil. In the meantime, the entire trade will keep a close eye to the weather in the South and particularly in the Western belt, as some of the private reports are placing the Texas condition under 50 per cent.

COTTONSEED OIL—Market transactions:

Friday, August 30, 1929.

	Sales.	—Range— High.	Low.	—Closing— Bid.		Asked.
Spot				935	a	Bid
Sept.	100	935	935	935	a	....
Oct.	2700	957	950	954	a	....
Nov.				950	a	965
Dec.	400	969	965	963	a	964
Jan.	3100	975	969	968	a	971
Feb.				970	a	985
Mar.	6400	992	980	981	a	980
April				984	a	992

Total sales, including switches, 12,700 bbls. P. crude S. E. 7¾c bid.

Saturday, August 31, 1929.

HOLIDAY—No market.

Monday, September 2, 1929.

HOLIDIAY—No market.

Tuesday, September 3, 1929.

Spot				935	a	Bid
Sept.				940	a	990
Oct.	5000	968	965	967	a	....
Nov.				965	a	978
Dec.	1600	982	975	978	a	981
Jan.	900	985	980	982	a	985
Feb.				983	a	993
Mar.	2900	995	990	995	a	....
April				997	a	1005

Total sales, including switches, 10,400 bbls. P. crude S. E. 7⅞c bid.

Wednesday, September 4, 1929.

Spot				935	a	Bid
Sept.				940	a	965
Oct.	3200	967	961	960	a	962
Nov.				955	a	968
Dec.	2800	977	971	970	a	972
Jan.	2900	983	973	973	a	975
Feb.				975	a	985
Mar.	1800	994	987	987	a	989
April				989	a	999

Total sales, including switches, 10,700 bbls. P. crude S. E. 7⅞c bid.

Thursday, September 5, 1929.

Spot				935	a	nom
Sept.				930	a	955
Oct.		959	946	946	a	....
Nov.				940	a	955
Dec.		963	953	950	a	954
Jan.		968	960	959	a	960
Feb.				960	a	975
Mar.		982	974	974	a	....
April				975	a	985

Sales, 19,700 bbls.

See page 38 *for later markets.*

COCOANUT OIL—The position of the market was without any particular change, with the tone heavy and business generally quiet. At New York, nearby and shipment oil was quoted at 6¾c, while at the Pacific Coast, oil for the balance of the year was quoted at 6⅜c.

CORN OIL—The market ruled quiet but steady, with prices quoted at 7⅞@8c, f. o. b. mills.

SOYA BEAN OIL—A nominal situation continued to exist in this market, with New York barrels quoted at 11½c, tanks, 10½c. Pacific Coast tanks were quoted at 9½c.

PALM OIL—There was no particular business with consumers in this quarter, but the tone ruled steady with offerings rather well held. At New York, spot Nigre was quoted at 7¼@7½c; shipment Nigre, 7⅛c; spot Lagos, 7½@7⅝c; shipment Lagos, 7⅜@7½c.

PALM KERNEL OIL—The market was rather dull and about steady, with the trade awaiting developments. At New York, tanks were quoted at 7⅜c, while packages were 8½c nominal.

OLIVE OIL FOOTS—There was little or no improvement in demand but the market was steady at New York, with spot foots quoted at 9⅛c and new crop foots at 8¾c.

RUBBERSEED OIL—The market was dull but steady, with low grade oil quoted at 6¼c and high grade at 6¾c.

SESAME OIL—Market nominal.

PEANUT OIL—Market nominal.

COTTONSEED OIL—Demand for store oil was rather quiet, but the market was firmer, with the futures and store oil held at ¼c over September. Southeast crude was quoted at 7⅞@8c; Valley and Texas, 8c sales.

U. S. VEGETABLE OIL TRADE.

By E. L. Thomas*

Palm Kernel Oil Imports.

The extraction of palm kernel oil occupies a place of considerable importance in the growing crushing industries of the United Kingdom and certain of the countries of Continental Europe, where the residual cake is utilized as a feedstuff for livestock.

It is but natural, then, that our principal imports of this oil should come from the United Kingdom, with Germany taking second place, although our imports from both countries have tended to drop off somewhat in the last two years.

Importations of inedible olive oil employed in the manufacture of castile soap and for industrial purposes and olive oil foots going largely into soaps will be seen to vary somewhat from year to year. This may be explained as dependent to a considerable extent on crop conditions. Most of our inedible olive oil is imported from Spain, although in 1925, Greece, and in 1924, Italy, were the largest shippers.

The only other oil not included in the miscellaneous groupings is soya bean oil, of which we have been receiving substantial quantities from abroad during the past five years. Our largest annual importation was in 1926. Last year imports were reduced considerably. These imports originate chiefly in Manchuria via the port of Kwantung, but some oil is exported to the United States from both China and Japan.

China is our exclusive shipper of

*The first part of this article by Mr. Thomas, specialist in Meats, Oils and Fats, Foodstuffs Division, U. S. Bureau of Foreign and Domestic Commerce, appeared in the Aug. 17 issue of THE NATIONAL PROVISIONER.

vegetable tallow, one might say, except for insignificant quantities from Argentina. Our imports have undergone but slight changes as to size in the past five years.

Trends in Our Export Trade.

Our exports of $2,397,000 this year were the smallest of any of the three years under consideration. The figure quoted contrasts rather unfavorably with a recorded export in 1928, amounting to $4,373,487, and during 1927, $3,715,580.

Crude cottonseed oil was responsible for a shrinkage to the extent of 20,354,268 lbs. and $1,682,613 compared with last year. Likewise, our exports for the first four months of this year were over 11,225,000 lbs. and $800,650 short of the same period in 1927.

Refined cottonseed oil suffered also. No indications of radical shifts in consumer line-up are evidenced.

An unsatisfactory price condition was largely responsible, it would seem, that cocoanut oil exports were down about 1,500,000 lbs. from the exports for the January-April period last year. Canada, our most important market, consumed from the United States close to 3,000,000 lbs. for each four-month period, while Mexico increased its purchases last year some 1,500,000 lbs., taking from us this year approximately 2,400,000 lbs.

Cocoanut Oil to Cuba.

It is especially worth noting that Cuba, ordinarily bringing in from 250,000 to 300,000 lbs. ran its position for the January-April period to much more than double similar periods in the past two years.

Exports of soya bean oil showed some gain this year (January-April) over 1928, but a more substantial increase was registered between 1927 and 1928 when they doubled in volume and nearly so in value as well. Consumer nations have not changed this year.

Corn oil attracts but little attention during the period to which reference has been made. In 1927 and again this year the total outlay by foreign buyers of corn oil was slightly in excess of $16,000 (approximately 100,000 lbs. for each four-month period). Last year shipments recorded had a value of $21,000 representing over 150,000 lbs. Several of the Latin American nations and Japan were the chief buyers of this oil.

Vegetable Soap Stock Movement.

As mentioned earlier, vegetable soap stock or fatty acids rank well up among the leaders in the oil export fraternity. From January 1 to April 30 this year, we sent abroad a little more than half of our exports for 1927, both as to weight and value. Conforming to buying habits of previous years, the United Kingdom and Canada were our largest customers.

The two miscellaneous classifications —"other expressed oils and fats" for oils of an inedible nature, and "other edible oils and fats"—together include a very respectable percentage of our vegetable oil exports. As might reasonably be expected, changes from one four-month period to another are sharply defined, but during the last three years Canada has easily been the foremost consumer of these oils at all times.

Vegetable Oil Imports.

Not at any time during the past five years—as determined by a pro-rata division of the yearly imports in 1924 and 1925 and the actual figures for the past three years—have our imports even offered a semblance of an approach to the record established during January to April of the current year.

This year, for the period named, vegetable oils of foreign origin coming into the United States had a declared value of $31,451,655, against $23,272,806 last year for the same four months and $22,750,471 in 1927. Favorable prices and fear of the imposition of higher rates of duties account for much of this "greatest" importation of vegetable oils.

Cocoanut oil imports rose from about 99,000,000 lbs. in both 1927 and 1928—when the average price, according to declared values, was .08c and .078c per lb.—to some 131,500,000 valued at .07½c per lb. (or a little less than $9,900,000) during January-April this year. This is a gain of over one-third in volume.

Price Factor Has Large Influence.

However, a further proof that prices may be a powerful stimulus or a serious deterrent is offered in our imports of edible olive oil, which were 500,000 lbs. in excess of the January-April period of 1927 but valued a million dollars short of 1927.

There were no shifts in sources of supply, which applies likewise to sulphur olive oil or foots and the inedible or industrial grade. The two last mentioned classifications reflect substantial gains during the first four months of the current year over 1928.

The price factor is again emphasized on these oils, particularly the sulphur quality, the increase in our January-April receipts this year over 1927 being 3,600,000 lbs., with relatively little difference in comparative values.

Palm Oil Imports Heavy.

Imports of palm oil were practically double those of last year and nearly treble the importations of this oil in tonnage—although not in money totals —in the first four months of 1927. As is regularly the order of things, British West Africa was our chief supplier.

The average price per pound of palm kernel oil imported up to April 30 of this year was ¼c less than in 1928 and nearly one cent below 1927 for corresponding periods. The volume jumped to thrice our imports last year and was twelve-fold the recorded arrivals in 1927.

This is the biggest gain registered in the entire vegetable oil category, and this year is also noteworthy in that Germany replaced the United Kingdom as the principal exporter to the United States.

There was a remarkable gain in sesame oil as well. Between January 1 and April 30, 1927, our imports classed this oil as among our comparatively unimportant oils. The following year, for the same period, we had more than doubled our importation, while prior to April 30 this year there was entered officially in excess of nine times the quantity coming in during 1927. We continue to buy much of this oil from the Netherlands.

Other Oils and Fats.

Other vegetable oils or fats to show a gain from January to April, 1929, inclusive, are vegetable tallow and linseed oil, notably the latter, our normal importation of which is inconsequential.

In April of this year, Germany alone shipped us 6,313,872 lbs. with a declared value of $391,348. There were 217,800 lbs. worth $15,104 from other sources during the first three months of 1929. Imports for the first four months of 1928 and 1927 fell decidedly below those of 1929.

Vegetable tallow gained somewhat over 1928, the arrivals being a substantial increase as to tonnage over 1927 and 1928.

Soya bean oil receipts from Manchuria between January 1 and April 30, 1929, were more than eight times as large as 1927, and heavier than last year.

EXPORTS OF VEGETABLE OILS FROM UNITED STATES.
January 1, through April 30.

	1929.		1928.		1927.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Cottonseed oil, crude	7,030,294	$585,934	27,384,562	$2,268,547	18,278,270	$1,386,584
Cottonseed oil, refined	2,815,315	345,679	4,200,757	469,506	9,007,110	909,734
Corn oil	119,452	16,204	156,235	21,647	161,908	16,438
Other vegetable oils and fats, edible	971,139	163,228	1,197,713	179,747	821,219	130,669
Cocoanut oil	6,723,860	577,610	8,196,964	704,315	6,158,787	534,548
Soya bean oil	2,586,189	258,768	2,429,652	264,964	1,080,739	137,836
Vegetable soap stock	2,645,832	185,088	2,664,082	162,974	4,911,450	267,354
Other inedible oils and fats	2,232,030	190,070	2,805,739	229,218	2,341,479	215,768
Total, all vegetable oils		$2,397,736		$4,373,487		$3,714,570

IMPORTS OF VEGETABLE OILS INTO UNITED STATES.
January 1, through April 30.

	1929.		1928.		1927.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Palm kernel oil	25,304,415	$1,995,478	8,580,167	$ 708,902	1,990,375	$ 172,433
Sesame oil	7,074,740	654,465	1,703,425	186,816	750,255	68,697
Vegetable tallow	3,945,593	291,841	3,189,893	219,082	2,340,887	166,313
Olive oil edible	30,268,380	5,470,221	28,744,409	5,129,174	29,751,026	6,425,352
Soya bean oil	6,101,238	387,331	5,371,119	330,950	701,271	44,685
Cocoanut oil	131,588,704	9,895,903	99,022,666	7,768,685	99,019,877	7,972,950
Palm oil	82,957,679	5,631,016	44,684,503	2,966,494	29,509,880	2,104,033
Other expressed oils	7,540,190	532,964	2,151,135	196,989	2,021,525	284,664
Total, all vegetable oils		$31,984,619		$23,282,796		$22,745,470

Source: Monthly summary of Foreign Commerce and Navigation of the United States.

The Week's Closing Markets

FRIDAY'S CLOSINGS

Provisions.

Provisions are fairly active and weak with hogs and due to hedge pressure, liquidation, stop loss orders and poor support. Cash lard trade is fair.

Cottonseed Oil.

Cotton oil active and weaker owing to the setback in cotton, weakness in lard and rains in Texas and Oklahoma. Crude is easier. Southeast and Valley 7⅝@7¾c; Texas, 7⅝c sales and bid.

Quotations on cottonseed oil at New York, Friday noon, were: Sept., $9.25 bid; Oct., $9.43@9.45; Nov., $9.35@9.50; Dec., $9.49@9.51; Jan., $9.55@9.57; Feb., $9.55@9.70; March, $9.70; April, $9.72@9.85.

Tallow.

Tallow, extra, 7⅞c asked.

Stearine.

Stearine, oleo, 10¾c.

FRIDAY'S GENERAL MARKETS.

New York, Sept. 6, 1929.—Lard, prime western, $12.45; middle western, $12.35; city, 12⅛c; refined continent, 13¼c; South American, 13⅝c; Brazil kegs, 14⅝c; compound, 11¼c.

ARGENTINE BEEF EXPORTS.

Cable reports of Argentine exports of beef this week up to Sept. 6, 1929, show exports from that country were as follows: To England, 93,634 quarters; to the Continent, 7,374 quarters.

Exports of the previous week were as follows: To England, 109,224 quarters; to the Continent, 27,125 quarters.

PORK PRODUCTS EXPORTS.

Exports of pork products from principal ports of the United States during the week ended Aug. 31, 1929, are reported as follows:

PORK, BBLS.

To	Week ended Aug. 31, 1929.	Week ended Sept. 1, 1928.	Nov. 1, 1928 to Aug. 31, 1929.
United Kingdom	.....	......	2,829
Continent	.....	62	3,700
Sth. and Ctl. America	160	......	160
West Indies	185	......	8,342
B. N. A. Colonies	.....	......	213
Other Countries	.....	......	50
Total	345	62	15,294

BACON AND HAMS, LBS.

United Kingdom	2,728,500	4,727,000	143,014,750
Continent	1,132,500	448,000	32.205,300
B. N. A. Colonies	......	......	22,000
Other Countries	......	......	499,000
Total	3,861,000	5,175,500	175,741,050

LARD, LBS.

United Kingdom	4,543,627	2,809,025	225,335,538
Continent	7,619,305	5,743,615	278,767,102
Sth. and Ctl. Amer.	329,000	449,000	17,623,000
West Indies	354,000	418,000	17,806,000
Other Countries	......	......	4,428
Total	12,843,932	9,419,640	539,536,068

TOTAL EXPORTS BY PORTS.

Week ended Aug. 31, 1929.

From	Pork, Bbls.	Bacon and Hams, Lbs.	Lard, Lbs.
New York	.....	1,602,000	8,311,932
Boston	.....	......	535,000
Philadelphia	.....	......	63,000
New Orleans	345	......	746,000
Montreal	.....	2,259,000	3,188,000
Total week	345	3,861,000	12,843,932
Previous week	370	3,234,500	8,650,615
2 weeks ago	545	4,954,000	8,310,520
Cor. week, 1928	62	5,175,500	9,416,640

COMPARATIVE SUMMARY OF EXPORTS.

November 1 to August 31, 1929.

	1928 to 1929.	1927 to 1928.
Pork, lbs.	3,058,800	2,371,200
Bacon and hams, lbs.	175,741,050	193,280,680
Lard, lbs.	539,536,068	502,675,438

PACKER AND FOOD STOCKS.

The price ranges of the listed stocks of packers, leather companies, chain stores and food manufacturers on Sept. 4, 1929, or nearest previous date, together with the number of shares dealt in during the week and the closing prices on Aug. 28, or nearest previous date, were as follows:

	Sales. Wk. ended Sept. 4.	High. Sept. 4.	Low. Sept. 4.	Close. Sept. 4.	Close. Aug. 28.
Allied Pack.	300	⅜	⅜	⅜	⅜
Amal. Leath.	100	6	6	6	6
Amer. H. & L.	3,300	8½	8½	8½	8¾
Do Pfd.	2,600	50	50	50	48
Amer. Strs.	500	66⅛	66	66⅛	67
Armour A	46,100	12½	11¾	12½	11⅞
Do B	16,200	6¾	6½	6⅝	6⅜
Do Pfd.	2,400	78¾	78¾	78¾	71⅞
Do Del. Pfd.	2,900	90½	90½	90½	87
Barnett Leath.	....	....	....	....	8
Do Pfd.	50	45	45	45	....
Beechnut Pack.	100	83¾	83¾	83¾	85
Bohack, H. C.	....	....	....	....	82
Chick. C. Oil.	800	36⅝	36⅝	36⅝	36½
Childs Co.	24,400	72¾	71¼	71¼	69
Cudahy Pack.	11,400	53	52½	52½	52
First Nat. Strs.	7,300	83⅝	81¾	81¾	82½
General Foods	37,400	72⅜	71⅝	71¾	72½
Gobel Co.	14,500	33	32⅛	32¾	35
Gt. A.&P. Pfd.	150	116¼	115⅞	115⅞	114¾
Hormel, Geo. A.	1,350	54	52⅞	54	51
Hygrade Food	4,600	32	32	32	33
Kroger G. & B.	12,500	89⅝	88	88⅛	87½
Libby McNeill	80,800	17⅜	15⅞	16⅝	14⅝
MacMarr Strs.	1,500	41½	39	41½	42
Mayer, Oscar	....	14	12	....	....
Do 1st Pfd.	....	106	104	....	....
Do 2d Pfd.	....	110	107	....	....
Morrell, John	400	73½	73½	73½	73⅝
Nat. Fd. Pr. B.	600	9⅞	9	9⅞	9⅞
Nat. Leather	20,250	3⅝	3½	3½	2⅝
Nat. Tea	6,400	67¾	65½	66⅜	63⅝
Proc. & Gam.	16,200	92⅛	90	90	90⅛
Rath Pack.	3,950	35	33⅞	34⅞	32½
Safeway Strs.	36,100	184⅛	178⅝	180⅞	176¾
Do 6% Pfd.	350	95¾	95¾	95¾	95¼
Do 7% Pfd.	50	103	102½	102½	102½
Stahl-Meyer	....	....	....	....	39
Strauss-Roth	3,200	26	20	20	29⅞
Swift & Co.	9,150	143	140	140	141
Do Intl.	13,400	36½	35¾	35¾	35
Trunz Pork	100	35¼	35¼	35¼	35⅜
U. S. Leath.	5,000	24⅛	24	24⅛	23
Do A	2,000	36	36	36	34½
Do Pr. Pfd.	200	94¼	94¼	94¼	93½
Wesson Oil	2,700	34½	34	34½	34¾
Do Pfd.	1,300	60⅛	60	60	60¼
Wilson & Co.	500	7⅜	7⅜	7⅜	7⅜
Do A	1,200	17	17	17	17
Do Pfd.	300	63	63	63	63

WHOLESALE DRESSED MEAT PRICES.

Wholesale prices of Western dressed meats quoted by the U. S. Bureau of Agricultural Economics at Chicago and Eastern markets on Sept. 5, 1929:

	CHICAGO.	BOSTON.	NEW YORK.	PHILA.
Fresh Beef:				
STEERS (700 lbs. up):				
Choice	$22.50@24.00	$23.50@24.50	$24.50@25.50	$24.00@25.00
Good	21.50@22.50	22.00@23.50	22.00@24.50	23.00@24.00
STEERS (550-700 lbs.):				
Choice	23.00@24.00	....	24.50@26.00	25.00@26.00
Good	22.00@23.00	....	22.00@24.50	22.50@24.00
STEERS (500 lbs. up):				
Medium	16.50@20.00	19.00@22.00	17.00@22.00	17.00@21.50
Common	14.50@16.50	17.00@19.00	16.00@17.00	....
STEERS (1):				
Yearling (300-550 lbs.):				
Choice	23.50@24.50	....	25.00@26.50	25.00@26.00
Good	21.50@23.50	....	22.00@23.00	24.00@25.00
Medium	19.00@21.50	....	....	....
COWS:				
Good	16.00@19.00	18.00@19.00	16.50@18.50	17.50@18.50
Medium	14.00@16.00	16.50@18.00	14.00@16.50	15.50@17.00
Common	13.00@14.00	15.50@16.50	13.00@14.00	14.00@15.00
Fresh Veal and Calf Carcasses:				
VEALERS (2):				
Choice	25.00@27.00	25.00@26.00	28.00@30.00	26.00@27.00
Good	24.00@25.00	22.00@25.00	26.00@28.00	25.00@26.00
Medium	22.00@24.00	20.00@22.00	24.00@26.00	22.00@24.00
Common	20.00@22.00	18.00@20.00	22.00@24.00	....
CALF (2) (3):				
Choice	....	....	24.00@26.00	22.00@24.00
Good	19.00@21.00	19.00@20.00	22.00@24.00	20.00@22.00
Medium	17.00@19.00	17.00@19.00	19.00@22.00	18.00@20.00
Common	15.00@17.00	15.00@17.00	17.00@19.00	15.00@17.00
Fresh Lamb and Mutton:				
LAMB (38 lbs. down):				
Choice	25.00@26.00	25.00@26.00	25.00@27.00	26.00@28.00
Good	24.00@25.00	24.50@26.00	23.00@25.00	25.00@27.00
Medium	21.00@23.00	21.00@24.50	21.00@22.00	22.00@25.00
Common	17.00@20.00	18.00@21.00	19.00@21.00	18.00@22.00
LAMB (39-45 lbs.):				
Choice	25.00@26.00	25.00@26.00	25.00@27.00	26.00@28.00
Good	24.00@25.00	24.50@26.00	23.00@25.00	25.00@27.00
Medium	21.00@23.00	21.00@24.50	21.00@22.00	22.00@25.00
Common	17.00@20.00	18.00@21.00	19.00@21.00	18.00@22.00
LAMB (46-55 lbs.):				
Choice	23.00@24.00	23.00@24.00	24.00@26.00	25.00@26.00
Good	22.00@23.00	22.00@24.00	23.00@25.00	24.00@25.00
MUTTON (Ewe) 70 lbs. down:				
Good	11.00@13.00	11.00@13.00	10.50@12.00	12.00@13.00
Medium	9.00@11.00	9.00@11.00	9.00@10.00	10.00@11.00
Common	8.00@ 9.00	8.00@ 9.00	8.00@ 9.00	8.00@10.00
Fresh Pork Cuts:				
LOINS:				
8-10 lbs. av.	31.00@33.00	30.00@31.00	29.00@31.00	30.00@32.00
10-12 lbs. av.	29.00@31.00	29.00@31.00	28.00@30.00	29.00@31.00
12-15 lbs. av.	25.00@27.00	26.00@28.00	25.00@27.00	25.00@27.00
16-22 lbs. av.	19.00@23.00	20.50@23.00	20.00@22.00	20.00@23.00
SHOULDERS N. Y. Style, Skinned:				
8-12 lbs. av.	17.50@18.00	....	18.00@21.00	18.00@20.00
PICNICS:				
6- 8 lbs. av.	....	16.00@17.00	....	17.00@18.00
BUTTS Boston Style:				
4- 8 lbs. av.	22.50@23.50	....	23.00@25.00	23.00@25.00
SPARE RIBS:				
Half Sheets	13.00@14.00	....	....	....
TRIMMINGS:				
Regular	11.50@12.00	....	....	....
Lean	20.00@20.50	....	....	....

(1) Includes heifer yearlings 450 lbs. down at Chicago and New York. (2) Includes "skins on" at New York and Chicago. (3) Includes sides at Boston and Philadelphia.

Hide and Skin Markets

Chicago.

PACKER HIDES—Trading on a broad scale in the packer hide market this week cleaned up practically everything in packers' hands, with the exception of light native cows and a few cars extreme native steers, for which holders are asking ½c premium. Around 140,000 hides moved during the week, including all descriptions except bulls, and about 23,000 more light native and branded cows were moved at the close of last week.

At the end of last week, light native cows eased off ½c, with a good movement resulting on that basis. Heavy native cows sold this week at ½c advance. All other descriptions moved at the same prices paid last week. At the moment, the market is in a more closely sold-up position than for some months back, and killers are of a disposition to ask ½c more on the light hides remaining.

A car of July-August spready native steers sold in this market late last week at 21c. About 20,000 heavy native steers were moved by all packers at 19½c, which had been bid earlier for small lots. One car of extreme native steers reported sold here at 18c late last week; however, several cars of July forwards moved this week at 17½c, and this is bid, with packers asking 18c for straight August hides.

Branded hides were well sold at 19c for butt branded steers and 18c for Colorados. Heavy Texas steers moved at 19c, light Texas steers at 17½c and extreme light Texas sold with branded cows at 16½c, all steady prices.

Several cars of heavy native cows moved at 19c, or ½c advance. Light native cows declined ½c late last week on the movement of 12,500 at 17½c, and further trading of about 20,000 this week at 17½c. About 30,000 branded cows moved at 16½c, and 10,000 more at the end of last week same basis.

Last trading in June to August native bulls was 12½c with 13c asked for current kill. Branded bulls nominally 11½@12c, top last paid for southerns.

Only trading in South American steers reported this week was at steady price, early in week, $41.25 gold equal to 19 3/16c, c. i. f. New York; some later trading in cows, also steady.

SMALL PACKER HIDES—Trading in local September production opened when one small packer moved 7,000 hides at 17¾c for all-weight native steers and cows and 16½c for branded. Bids of ¼c less on natives declined.

Last trading in Pacific Coast market was at 16c for June-July steers and 15c for cows, f. o. b. Los Angeles and San Francisco.

HIDE TRIMMINGS—Big packer hide trimmings nom. $36.00 per ton. Chicago basis; small packer trimmings around $33.00.

COUNTRY HIDES—Market firm and fairly active, with offerings rather light. Good all-weights have sold at 13½c but some houses claim they can not pay over 13. Heavy steers and cows dull and offered at 12½c, with 12c paid. Sales of buffs at 13½c, with 14c generally asked. Extremes sold at 16c, and late this week one house declined 16¼c, with 16½c generally asked. All-weight branded priced around 11½c, less Chicago freight.

CALFSKINS—Packer calf active and higher. Two packers moved about 11,000 August calf this week at 24c for northerns and 23c for southerns, while two other packers moved 22,000 August calf late last week at 24½c, northern basis, or 1c over previous sale.

First-salted Chicago city calf nominally around 22½c and up to 23c talked. Mixed cities and countries around 20c; straight countries 18@18½c. Last sale of Chicago city light calf and deacons $1.60.

KIPSKINS—Packer kips active and irregularly higher. Three packers moved 31,000 kips at 22c for August northern natives, and 20½c for July-August northern over-weights; southerns 1c less in each case. Branded kips sold at 18½c, flat.

A car of first-salted Chicago city kips sold at 19¾c and another car reported later at 20¼c. Mixed cities and countries around 17@18c; straight countries around 17c.

Packer regular slunks last sold at $1.40, hairless 30@40c.

HORSEHIDES—Market about unchanged; choice city renderers $5.75@6.00 asked; mixed lots $4.75@5.25.

SHEEPSKINS—Dry pelts quoted 20@21c per lb. One big packer moved 3,000 No. 1 shearlings at $1.17½, steady; last sale of No. 2's was at $1.05. Pickled skins last sold at $9.37½ at Chicago for straight run packer native lambs; New York market quoted around $9.25@9.50. Big packer wool lambs $2.20 per cwt. live lamb paid at Chicago; last sale at New York $2.30 per cwt. live lamb. Last local sale of small packer August lambs was at $2.15 per cwt. live lamb.

PIGSKINS—No. 1 pigskin strips nom. 6½@7c, but higher available for choice big packer strips. Gelatine stocks last sold at 5½c for fresh frozen, green salted 5c asked.

New York.

PACKER HIDES—One packer, who had been holding August native hides, moved two cars native steers at 19½c, cleaning up August packer productions in this market. Same killer moved branded hides previous week at 19c for butt branded steers and 18c for Colorados. Talking up to 22c for spready native steers.

COUNTRY HIDES—Market firm but trading restricted by lack of offerings and holders apparently have not many hides. Buff weights quoted 13½@14c. Good middle-west extremes quoted around 16c.

CALFSKINS—Calfskin market quiet but strong and doubtful if more could be had at last trading prices, which were $1.85 for 5-7's, $2.35 for 7-9's and $3.15 for 9-12's. Veal kips, 12/17 lb., around $3.50 asked.

New York Hide Exchange Futures.

Closing quotations on futures trading on the New York Hide Exchange:

Aug. 31 and Sept. 2, holidays.

Tuesday, September 3, 1929.—Sept. 17.00 n; Oct. 17.25 b; Nov. 17.50 b; Dec. 18.35@18.50; Jan. 18.45@18.60; Feb. 18.60 n; Mar. 18.75 b; Apr. 18.80 n; May 19.00@19.05; June 19.00 n; July 19.00 n; Aug. 19.05 n. Sales 14 lots.

Wednesday, Sept. 4, 1929.—Sept. 17.00 n; Oct. 17.25 n; Nov. 17.75 n; Dec. 18.50; Jan. 18.50@18.75; Feb. 18.60 b; Mar. 18.70 b; Apr. 18.85 n; May 19.10 @19.25; June 19.10 n; July 19.15 n; Aug. 19.20 n. Sales 17 lots.

Thursday, September 5, 1929.—Sept. 17.00 n; Oct. 17.25 n; Nov. 17.75 b; Dec. 18.60@18.70; Jan. 18.65@18.90; Feb. 18.70 n; Mar. 18.80 n; Apr. 18.90 n; May 19.20@19.25; June 19.20 n; July 19.20 n; Aug. 19.20 n. Sales 4 lots.

Friday, September 6, 1929.—Sept. 17.00 n; Oct. 17.50 n; Nov. 18.00 n; Dec. 18.65; Jan. 18.80 n; Feb. 18.85 n; Mar. 18.90 n; Apr. 19.00 n; May 19.10@19.30; June 19.10 n; July 19.10 n; Aug. 19.10 n. Sales 13 lots.

CHICAGO HIDE MOVEMENT.

Receipts of hides at Chicago for the week ended August 31, 1929, were 3,567,000 lb.; previous week, 2,637,000 lb.; same week last year, 2,624,000 lbs.; from January 1 to August 31 this year, 134,235,000 lbs.; same period a year ago, 140,693,000 lbs.

Shipments of hides from Chicago for the week ended August 31, 1929, were 3,960,000 lbs.; previous week, 3,594,000 lbs.; same week last year, 3,673,000 lbs.; from January 1 to August 31 this year, 146,694,000 lbs.; same period a year ago, 152,584,000 lbs.

CHICAGO HIDE QUOTATIONS.

Quotations on hides at Chicago for the week ended September 6, 1929, with comparisons, are reported as follows:

	Week ended Sept. 6, 1929.	Prev. week.	Cor. week. 1928.
PACKER HIDES.			
Spr. nat. strs.	@21	21 @21½n	26½@27
Hvy. nat. strs.	@19½	19½@20	@24½b
Hvy. Tex. strs.	@19	@19	@23
Hvy. butt brnd'd strs.	@19	18½@19	23 @23½
Hvy. Col.strs.	@18	@18	@22½b
Ex-light Tex. strs.	@16½	16½@17	22 @22½
Brnd'd cows.	@16½	16½@17	22 @22½
Hvy. nat. cows	@19	@18½b	@24½b
Lt. nat. cows	@17½	@18	23 @23½
Nat. bulls ..12½@13		12½@12¾	16 @16½
Brnd'd bulls.11½@12		11½@12	15 @15½
Calfskins ...24 @24½		23½@25ax	30 @31ax
Kips, nat. ..	@22	@22	@27½
Kips, ov-wt..	@20½	19½@20	@26½ax
Kips, brnd'd.	@18½	@17½	@25½ax
Slunks, reg..	@1.40	@1.40	1.70@1.75
Slunks, hrls..30 @40		30 @40	@70n

Light native, butt branded and Colorado steers 1c per lb. less than heavies.

	Week ended Sept. 6, 1929.	Prev. week.	Cor. week. 1928.
CITY AND SMALL PACKERS.			
Nat. all-wts.	@17¾	@18n	@23
Branded	@16½	16½@17n	22 @22½
Nat. bulls ..	@12½	@12½	16 @16½
Brnd'd bulls.	@11	@11	15 @15½
Calfskins ...22 @22½n		@21½n	@27½
Kips ....19¾@20¼		@20ax	25½@26
Slunks, reg...	@1.20	@1.20	@1.60
Slunks, hrls..20 @30n		20 @30n	@60n
COUNTRY HIDES.			
Hvy. strs....	@12½ax	@12½ax	17 @17½
Hvy. cows ..	@12½ax	@12½ax	17 @17½
Buffs ....13½@14		13½@14	19 @19½
Extremes ...16 @16½		16 @16½	21½@22
Bulls .... 9½@10		9½@10	14 @14½
Calfskins ...18 @18½		17 @18	22½@23
Kips	@17n	16 @16½	22 @22½
Light calf ..1.10@1.20		1.10@1.20	1.60@1.70
Deacons ....1.10@1.20		1.10@1.20	1.60@1.70
Slunks, reg..50 @60		50 @60	75 @90
Slunks, hrls.	@10n	@10n	25 @30
Horsehides ..4.75@6.00		5.00@6.00	6.25@7.50
Hogskins ...65 @70		65 @70	80 @90
SHEEPSKINS.			
Pkr. lambs...	@2.25 cwt.	@2.25 cwt.	......
Sml. pkr. lambs	@2.15 cwt.	@2.15 cwt.	......
Pkr. shearlgs.1.05@1.17½		1.05@1.17½	1.50@1.55
Dry pelts ...20 @21		20 @21	26 @28

Live Stock Markets

CHICAGO

(Reported by U. S. Bureau of Agricultural Economics.)

Chicago, Sept. 5, 1929.

CATTLE—Compared with a week ago: Fed steers and yearlings, 50c@$1.00 lower, inbetween grades off most, but strictly choice fed steers and yearlings unevenly 25@50c lower; she stock, 25@50c off on practically all kinds except grainfed specialties, either light or heavy; bulls, weak to 25c lower; vealers, 50@75c higher. Western grassers to killers shared the killer decline, but bulk light offerings went on stocker account. Extreme top for week $17.00, paid early; closing top weighty steers, $16.50. The downturn ran through entire list in face of excessive receipts on post-holiday trade. Grassy steers, especially from Southwest and shortfeds from corn belt largest factor in piling up burdensome cattle supply. Northwestern grass run still below a year ago. Replacement demand continues narrow, with result that lower grade grassy and shortfed steers are getting little support from country buyers. Best fed yearlings, $16.60; heifer yearlings, $15.50. Bulk grain fed steers closed at $12.75@15.25, with grassers and shortfeds at $9.75@12.50 on killer account. Vealers reached $18.00.

HOGS — Continued comparatively heavy runs largely responsible for week's 35@50c decline on hogs scaling over 160 lbs.; increased percentage of light lights and pigs and these weights, 75c lower for week. Today's top, $11.45, a new low mark since July 1. Bulk good to choice 160- to 210-lb. weights, $11.00@11.30; 220- to 240-lb. averages, $10.55@10.90; 250- to 270-lb. weights, $10.20@10.50; 280- to 320-lb. averages, $9.65@10.20; around 350-lb. weights, $9.50; good to choice, 130- to 150-lb. averages, $10.00@11.00; pigs, largely $9.00@10.00; bulk packing sows, $8.60@9.15; lightweights, up to $9.35.

SHEEP—Compared with a week ago: Fat lambs, 25@50c lower; fat ewes, 25c lower. Week's tops: Native lambs, $13.65; rangers, $13.50; fat ewes, $5.50. Bulks: Native lambs, $13.00@13.25; rangers, $13.00@13.40; closed $13.00@13.25; few range yearlings, $10.00; fat ewes, $4.00@5.00; bulk lightweights, $13.25@13.50, top, $13.75; mixed range, feeding and breeding ewes, $5.50.

KANSAS CITY

(Reported by U. S. Bureau of Agricultural Economics.)

Kansas City, Kans., Sept. 5, 1929.

CATTLE—Most yearlings and inbetween grades of fed steers held at around steady levels, but good to choice fed steers and low priced grass fat offerings closed weak to 25c lower as compared with last Thursday. She stock sold at mostly steady rates, with some weakness shown on fat cows. Bulls and vealers are steady, with the late top on veals at $14.50. Strictly choice 1,501-lb. grain fed steers topped the week's trade at $16.50, equaling the year's high mark, while best yearlings brought $16.25. Most of the fed arrivals cashed from $13.00@15.25; wintered and fed Westerns, $11.00@13.00; straight grassers, $7.25@10.50.

HOGS—Although some strength was noted in the hog trade on the final session of the period under review, closing prices are from 35@50c lower than a week previous. Underweights were neglected, and some sales show even more decline. At the finish both shippers and packers paid the extreme top of $10.90 on choice 190- to 210-lb. averages. Choice 250-lb. butchers went at $10.50, while best 300-lb. averages sold around $10.00. Packing grades are 25c lower at $8.85 down.

SHEEP—Unsettled conditions in the Eastern dressed lamb and mutton market was responsible for a 25@35c drop in fat lamb values, and a 35@50c decline in mature classes. Choice range lambs scored $13.50 at the opening of the week, but most of the supply sold from $12.75@13.25. Best natives brought $12.75, with others at $12.00@12.50. Lightweight Colorado ewes reached $5.60 on Monday, but the bulk of the range ewes cleared from $4.50@5.50.

OMAHA

(Reported by U. S. Bureau of Agricultural Economics.)

Omaha, Sept. 5, 1929.

CATTLE—The market on fed steers and yearlings carried a dull and weak to lower undertone on most days, and prices worked unevenly lower, with an average decline for the week of around 50 cents. She stock held just about steady; bulls closed the week strong, and veals are fully steady. Choice 1,064-lb steers topped for the week at $16.10, with best weighty steers at $15.60. Mixed yearlings earned $15.00, and yearling heifers, $14.00.

HOGS—Further weakness marked the trade in hogs, notwithstanding fresh receipts were held to moderate volume. Compared with a week ago, all classes of hogs uncover a 35@50c decline. Thursday's top held at $10.80, with bulk of the 170- to 210-lb. weights at $10.50@10.75; 210- to 250-lbs., $10.25@10.65; 250- to 300-lb. averages, $9.50@10.25; 340-lb. strong weights, $9.40. Packing sows moved at $8.50@8.85; extreme heavies, down to $8.25; stags, $8.25@9.25.

SHEEP—Movement of lambs from range states continue liberal, but percentage of slaughter lambs was light, being estimated at 25 to 30 per cent of the total supply. While sharp price fluctuations have featured the fat lamb trade, the ups and downs about balanced, and current prices are steady with a week ago. Bulk of the fat range lambs sold at the close at $12.85@13.00; top, $13.00; fed clipped, $12.75; natives, $12.50@12.60; shearing lambs, $12.00@12.50. Sheep ruled steady, with fat ewes noted at $4.00@5.00.

ST. LOUIS

(Reported by U. S. Bureau of Agricultural Economics.)

East St. Louis, Ill., Sept. 5, 1929.

CATTLE—Downward price revisions were the rule in the native cattle trade this week, only choice steers and a very few yearlings holding steady. All other native steers declined 25@50c, yearlings showing the least decline. Western steers cleared steady to a shade lower. Good and choice vealers advanced 25c. All other killing classes declined 25c. Several loads of 1,045-lb. yearlings placed the week's top at $16.40, while $15.80 was the best price paid for matured steers, which averaged 1,225 lbs. Best heifers, averaging 707 lbs., landed $14.40, while $14.00 marked the high spot for mixed yearlings. Best range steers registered $11.60.

HOGS—Hog prices have declined sharply during the period. Compared with a week ago, prices are mostly 40@50c lower on butcher hogs and packing sows, with pigs weak to 25c lower. Top today, $11.40.

SHEEP—Prices on fat lambs fluctuated a little, but are closing with a net decline of 25c, while throwout lambs remained unchanged. Fat ewes were reduced sharply, these taking a full $1.00 decline. Top fat lambs to packers today, $12.50; bulk, $12.25@12.50; throwouts, $8.00; fat ewes, $4.00@5.00.

SIOUX CITY

(Reported by U. S. Bureau of Agricultural Economics.)

Sioux City, Ia., Sept. 5, 1929.

CATTLE—Moderate beef steer and yearling supplies locally offset some of the extremely bearish outside influence, and weak to 25c lower covered most changes. Choice lightweight steers equalled the season's high point at $16.70; long fed yearlings made $16.00@16.10, with the latter price top for matured beeves. Most grain feds went at $13.00@15.50. Fat she stock held steady, with firmness noted for bulls and veals. Choice heifers topped at $14.50; grass cows bulked at $7.00@8.00; select vealers, $14.50; medium bulls, $7.50@8.00 largely.

HOGS—General price levels stood 25c lower, with choice 180- to 220-lbs. weights at the $10.75 top. Most 170- to 240-lb. averages cashed at $10.25@10.75; 250- to 300-lb. butchers bulked at $9.65@10.15, with mixed and weightier offerings down to $9.25. Packing sows sold largely at $8.40@8.85, and smooth lights, $9.00.

SHEEP—Fat lambs showed little change, and slaughter ewes were 25@50c lower. Sorted range fat lambs topped late at $13.10, with most natives around $12.75@13.00. Choice lightweight fat ewes sold up to $5.00.

ST. PAUL

(Reported by U. S. Bureau of Agricultural Economics.)

So. St. Paul, Minn., Sept. 4, 1929.

CATTLE—Reflecting outside conditions, slaughter cattle broke unevenly 25@50c this week, other than on strictly choice fed offerings. Among the latter were several cars of yearlings and mediumweights at $15.00@15.25, bulk all grain feds earning $13.00@14.50, grassy offerings, largely $8.50@10.00; some few rangers, to $10.75. Range cows sold upwards to $8.50@9.50; heifers, $10.00@10.50; bulk all cows, $7.00@8.00; heifers, $8.25@9.25, these comprising common and medium grades. Cutters continued at $5.25@6.25; bulls, largely $7.50@8.00; vealers, on a steady to 25c downturn, selling largely at $16.00 today.

HOGS—Increased hog runs found butchers and packing sows unevenly 50@75c lower, light lights declining around 25c. Desirable 160- to 200-lb. offerings bulked at $10.50@10.60; 220- to 250-lb. weights, $10.00@10.25; heavy butchers, to $9.50; packing sows, $8.25@8.75; pigs and light lights, $9.50@10.00.

SHEEP—Increased runs in the sheep house resulted in a 25@50c break on lambs, medium to choice natives selling at $11.75@12.75, common lambs down to $8.50. Ewes broke 50c, turning largely at $4.00@5.00 on packer account.

RECEIPTS AT CHIEF CENTERS.

Combined receipts at principal markets, week Aug. 31, 1929, with comparisons:

At 20 markets:	Cattle.	Hogs.	Sheep.
Week ended Aug. 31	247,000	541,000	397,000
Previous week	253,000	497,000	398,000
1928	268,000	404,000	366,000
1927	276,000	469,000	370,000
1926	286,000	449,000	371,000
1925	306,000	462,000	328,000

At 11 markets:	Hogs.
Week ended Aug. 31	470,000
Previous week	424,000
1928	353,000
1927	411,000
1926	388,000
1925	414,000

At 7 markets:	Cattle.	Hogs.	Sheep.
Week ended Aug. 31	193,000	389,000	300,000
Previous week	199,000	362,000	309,000
1928	201,000	305,000	294,000
1927	219,000	335,000	284,000
1926	236,000	324,000	295,000
1925	243,000	338,000	241,000

Do you know how to build your hide pack to avoid shrinkage and keep your hides in No. 1 condition? Ask the "Packer's Encyclopedia."

SLAUGHTER REPORTS

Special reports to The National Provisioner showing the number of livestock slaughtered at 15 centers for the week ended August 31, 1929, with comparisons:

CATTLE.

	Week ended Aug. 31.	Prev. week.	Cor. week. 1928.
Chicago	27,558	27,318	23,465
Kansas City	22,476	22,913	21,102
Omaha	18,083	20,052	14,711
St. Louis	14,898	14,028	15,693
St. Joseph	8,068	6,954	8,197
Sioux City	......	7,599	......
Wichita	1,777	2,208	2,546
Fort Worth	......	......	8,806
Philadelpiha	1,435	1,254	1,392
Indianapolis	2,049	1,625	1,159
Boston	1,303	1,141	1,637
New York & Jersey City	8,655	8,000	10,116
Oklahoma City	7,496	7,366	5,701
Cincinnati	2,990	4,147	3,257
Denver	2,665	3,146	......
Total	119,453	127,751	117,782

HOGS.

	Week ended Aug. 31.	Prev. week.	Cor. week. 1928.
Chicago	115,360	112,870	67,382
Kansas City	25,478	22,666	13,502
Omaha	29,993	36,311	18,885
St. Louis	29,495	23,837	17,602
St. Joseph	19,913	18,919	13,835
Sioux City	......	18,616	......
Wichita	5,441	4,556	4,768
Fort Worth	......	......	5,464
Philadelphia	12,099	13,756	13,662
Indianapolis	13,453	12,030	7,039
Boston	9,803	9,983	8,322
New York & Jersey City	42,373	38,220	33,491
Oklahoma City	7,881	4,733	3,882
Cincinnati	16,679	16,429	13,656
Denver	7,443	6,971	......
Total	335,411	339,897	221,802

SHEEP.

	Week ended Aug. 31.	Prev. week.	Cor. week. 1928.
Chicago	59,725	62,368	53,739
Kansas City	16,328	27,918	26,157
Omaha	33,899	32,429	34,119
St. Louis	11,002	12,331	10,320
St. Joseph	20,895	19,964	14,508
Sioux City	......	10,907	......
Wichita	721	813	1,146
Fort Worth	......	......	3,390
Philadelphia	7,425	6,467	5,002
Indianapolis	1,494	1,759	1,080
Boston	7,227	7,774	5,704
New York & Jersey City	66,950	69,323	64,654
Oklahoma City	431	311	196
Cincinnati	2,505	1,598	1,637
Denver	6,352	3,413	......
Total	234,954	257,375	223,652

What precautions should be observed in cooking blood? Ask "The Packer's Encyclopedia," the "blue book" of the meat packing industry.

RECEIPTS AT CENTERS

SATURDAY, AUGUST 31, 1929.

	Cattle.	Hogs.	Sheep.
Chicago	250	6,000	500
Kansas City	100	1,600	500
Omaha	100	2,500	1,100
St. Louis	200	5,000	100
St. Joseph	.....	2,500	1,000
Sioux City	100	2,000	1,000
St. Paul	300	1,200	400
Oklahoma City	200	200	....
Fort Worth	200	500	100
Milwaukee	100	500	....
Denver	25	75	750
Louisville	100	800	500
Wichita	300	1,200	100
Indianapolis	200	3,000	400
Pittsburgh	100	1,800	300
Cincinnati	100	200	100
Buffalo	100	900	800
Cleveland	200	300	100
Nashville	100	500	1,000
Toronto	200	500	....

MONDAY, SEPTEMBER 2, 1929.

	Cattle.	Hogs.	Sheep.
Chicago	Holiday.		
Kansas City	19,000	8,000	5,000
Omaha	10,500	4,200	29,800
St. Louis	8,000	14,000	3,500
St. Joseph	3,900	2,700	4,700
Sioux City	8,300	2,600	7,500
St. Paul	11,300	6,500	6,500
Oklahoma City	1,400	500	....
Fort Worth	2,500	100	500
Milwaukee	300	1,000	300
Denver	2,300	800	7,700
Louisville	300	1,100	1,200
Wichita	1,300	2,300	300
Indianapolis	Holiday.		
Pittsburgh	800	4,000	4,400
Cincinnati	Holiday.		
Buffalo	800	2,000	3,500
Cleveland	700	3,800	2,600
Nashville	200	900	800
Toronto	400	500	700

TUESDAY, SEPTEMBER 3, 1929.

	Cattle.	Hogs.	Sheep.
Chicago	24,000	40,000	35,000
Kansas City	12,000	6,000	8,000
Omaha	8,000	8,000	29,000
St. Louis	6,500	12,000	4,500
St. Joseph	1,700	5,000	4,000
Sioux City	2,500	5,000	5,000
St. Paul	2,300	5,000	1,500
Oklahoma City	1,400	1,200	100
Fort Worth	3,000	1,000	1,000
Milwaukee	700	3,000	800
Denver	700	1,000	200
Louisville	200	1,100	1,100
Wichita	400	2,700	400
Indianapolis	2,000	10,000	2,000
Pittsburgh	100	900	300
Cincinnati	1,600	4,500	1,800
Buffalo	100	1,300	1,000
Cleveland	200	1,300	1,300
Nashville	300	900	800
Toronto	300	1,100	200

WEDNESDAY, SEPTEMBER 4, 1929.

	Cattle.	Hogs.	Sheep.
Chicago	16,000	18,000	23,000
Kansas City	8,500	6,000	8,000
Omaha	5,500	6,500	16,000
St. Louis	5,000	11,500	2,500
St. Joseph	2,700	7,000	5,000
Sioux City	1,700	4,000	2,500
St. Paul	2,600	9,000	10,000
Oklahoma City	1,500	1,500	100
Fort Worth	5,300	1,400	1,400
Milwaukee	600	2,000	800
Denver	500	700	1,500
Louisville	100	1,000	700
Wichita	500	1,800	400
Indianapolis	1,400	7,500	100
Pittsburgh	100	2,500	1,000
Cincinnati	600	3,400	1,100
Buffalo	200	1,100	600
Cleveland	400	1,900	1,700
Nashville	100	1,200	600
Toronto	700	1,000	1,000

THURSDAY, SEPTEMBER 5, 1929.

	Cattle.	Hogs.	Sheep.
Chicago	5,000	23,000	25,000
Kansas City	3,500	7,000	8,000
Omaha	1,500	5,500	14,000
St. Louis	2,500	13,500	3,500
St. Joseph	1,800	4,500	5,500
Sioux City	1,500	3,500	2,500
St. Paul	2,200	4,000	8,500
Oklahoma City	1,000	1,200	100
Fort Worth	4,000	1,200	200
Milwaukee	500	1,800	600
Denver	300	1,700	6,500
Louisville	300	700	500
Wichita	300	2,100	200
Indianapolis	1,000	7,000	1,000
Pittsburgh	100	2,200	1,000
Cincinnati	900	3,400	1,800
Buffalo	300	2,600	1,000
Cleveland	500	1,200	1,800
Nashville	200	500	600
Toronto	600	1,400	700

FRIDAY, SEPTEMBER 6, 1929.

	Cattle.	Hogs.	Sheep.
Chicago	2,000	20,000	4,000
Kansas City	800	6,000	3,000
Omaha	500	8,500	12,000
St. Louis	800	11,000	800
St. Joseph	300	4,000	600
Sioux City	800	6,000	6,500
St. Paul	1,800	6,000	7,000
Oklahoma City	1,000	1,400	....
Fort Worth	1,700	800	500
Milwaukee	200	800	200
Denver	100	300	400
Wichita	300	1,500	200
Indianapolis	800	6,500	1,000
Pittsburgh	....	3,000	800
Cincinnati	500	4,100	200
Buffalo	300	3,200	2,400
Cleveland	400	2,300	1,900

LIVESTOCK PRICES AT LEADING MARKETS.

Following are livestock prices at five leading Western markets on Thursday, Sept. 5, 1929, as reported to THE NATIONAL PROVISIONER by direct wire of the U. S. Bureau of Agricultural Economics:

Hogs (Soft or oily hogs and roasting pigs excluded):	CHICAGO.	E. ST. LOUIS.	OMAHA.	KANS. CITY.	ST. PAUL.
Hvy. wt. (250-350 lbs.) med-ch.	$ 9.50@10.60	$ 9.60@10.80	$ 9.15@10.35	$ 9.25@10.55	$ 9.50@10.25
Med. wt. (200-250 lbs.) med-ch.	10.25@11.25	10.35@11.35	9.75@10.80	10.25@10.90	10.00@10.65
Lt. wt. (160-200 lbs.) com-ch.	10.35@11.25	10.65@11.40	10.00@10.80	10.25@10.90	10.00@10.65
Lt. lt. (130-160 lbs.) com-ch.	9.50@11.10	10.00@11.35	9.50@10.65	9.75@10.65	9.50@10.65
Packing sows, smooth and rough.	8.25@ 9.35	8.65@ 9.00	8.00@ 8.90	7.75@ 9.00	8.25@ 9.25
Sltr. pigs (130 lbs. down) med-ch.	9.00@10.40	9.00@10.50	....	8.75@10.15	9.50@ 9.75
Av. cost & wt. Wed. (pigs excl.).	9.88-287 lb.	10.89-211 lb.	9.27-285 lb.	10.25-222 lb.	9.54-243 lb.
Slaughter Cattle and Calves:					
STEERS (1,500 LBS. UP):					
Good-ch	12.50@16.50	....	....	12.75@16.50	....
STEERS (1,300-1,500 LBS.):					
Choice	15.00@16.50	15.50@16.50	14.50@16.00	14.50@16.25	14.50@16.35
Good	13.00@15.25	12.75@15.50	12.50@14.50	12.25@14.50	13.00@14.50
STEERS (1,100-1,300 LBS.):					
Choice	15.25@16.75	15.50@16.75	14.50@16.25	14.50@16.25	14.50@16.25
Good	13.00@15.50	12.75@15.50	12.50@14.50	12.00@14.50	13.00@14.50
STEERS (950-1,100 LBS.):					
Choice	15.50@16.75	15.75@16.75	14.50@16.25	14.50@16.25	14.50@16.25
Good	13.00@15.75	13.00@15.75	12.50@14.50	12.00@14.50	13.00@14.50
STEERS (800 LBS. UP):					
Medium	10.50@13.00	9.00@13.00	10.25@12.50	9.00@12.00	10.00@13.00
Common	8.25@10.50	7.50@ 9.00	7.50@10.25	6.75@ 9.00	7.75@10.00
STEERS (FED CALVES AND YEARLINGS (750-950 LBS.):					
Choice	15.50@16.50	14.75@16.25	14.50@16.00	14.25@16.00	13.75@15.50
Good	13.25@15.50	13.25@14.75	12.50@14.50	12.00@14.50	12.25@13.75
HEIFERS (850 LBS. DOWN):					
Choice	14.50@15.50	14.50@15.00	13.25@14.50	13.50@14.75	13.35@14.50
Good	13.25@14.50	13.25@14.50	12.00@13.25	11.00@13.75	11.50@13.35
Common-med.	8.00@13.25	7.75@13.25	7.50@12.00	7.25@11.25	7.50@11.50
HEIFERS (850 LBS. UP):					
Choice	11.75@15.00	12.00@14.50	11.50@14.25	11.50@14.25	12.00@14.75
Good	10.00@14.50	11.00@13.75	10.00@13.25	9.50@13.50	10.50@13.00
Medium	8.00@13.25	9.00@12.50	8.00@12.00	7.75@11.00	8.50@10.75
COWS:					
Choice	10.75@11.75	10.00@11.00	9.75@11.50	9.50@10.75	9.50@11.75
Good	8.50@10.75	8.50@10.00	7.75@ 9.75	7.50@ 9.50	7.85@ 9.50
Common-med.	6.50@ 8.50	6.75@ 8.50	6.50@ 7.75	6.25@ 7.50	6.60@ 7.85
Low cutter and cutter	5.00@ 6.50	4.75@ 6.75	5.25@ 6.50	5.00@ 6.25	5.00@ 6.60
BULLS (YEARLINGS EXC.):					
Beef, good-ch.	8.75@10.75	8.25@ 9.75	8.25@ 9.75	8.25@ 9.50	8.35@ 9.50
Cutter-med.	6.75@ 8.75	6.75@ 8.25	6.25@ 8.25	6.00@ 8.25	6.50@ 8.35
CALVES (500 LBS. DOWN):					
Medium-ch.	10.00@13.50	9.00@12.50	9.00@12.00	8.00@12.00	9.00@12.00
Cull-common	7.00@10.00	6.50@ 9.00	6.00@ 9.00	6.00@ 8.00	7.50@ 9.00
VEALERS (MILK-FED):					
Good-ch.	15.50@18.00	15.25@16.75	13.00@15.00	11.50@14.50	12.50@16.75
Medium	12.00@15.50	12.75@15.25	10.00@13.00	9.00@11.50	9.00@12.50
Cull-common	8.00@12.00	6.00@12.75	6.50@10.00	6.00@ 9.00	7.50@ 9.00
SLAUGHTER SHEEP AND LAMBS:					
Lambs (84 lbs. down)	12.75@13.65	11.75@12.75	12.25@13.25	12.00@13.10	12.00@12.75
Lambs (92 lbs. down)	10.50@12.75	10.50@11.75	10.25@12.25	10.50@12.00	10.25@12.00
Lambs (all weights)	9.00@10.50	8.00@10.50	8.75@10.25	7.75@10.50	8.50@10.25
Yearling wethers (110 lbs. down) medium-choice	8.00@11.00	7.50@10.50	7.50@10.50	8.25@10.50	....
Ewes (120 lbs. down) med-ch.	4.25@ 5.50	4.00@ 5.00	4.25@ 5.25	4.25@ 5.35	....
Ewes (120-150 lbs.) med-ch.	4.00@ 5.25	4.00@ 5.00	4.00@ 5.00	4.00@ 5.25	....
Ewes (all weights) cull-com.	2.50@ 4.25	1.50@ 4.00	1.75@ 4.25	1.75@ 4.25	....

CANADIAN LIVESTOCK PRICES.

Summary of top prices for livestock at leading Canadian centers, week ended August 29, 1929, with comparisons, as reported by the Dominion Livestock Branch:

BUTCHER STEERS.
1,000-1,200 lbs.

	Week ended Aug. 29.	Prev. week.	Same week, 1928.
Toronto	$10.15	$10.50	$12.00
Montreal	9.50	10.50	11.00
Winnipeg	10.00	10.00	10.50
Calgary	9.25	9.50	11.00
Edmonton	8.75	9.00	10.00
Prince Albert	8.50	8.50	9.50
Moose Jaw	9.00	9.00	10.50
Saskatoon	8.50	8.50	9.50
VEAL CALVES.			
Toronto	$16.50	$16.50	$17.50
Montreal	13.50	13.50	15.00
Winnipeg	14.00	13.00	13.00
Calgary	10.25	10.50	10.50
Edmonton	12.00	11.00	11.00
Prince Albert	9.50	9.00	10.00
Moose Jaw	11.00	10.00	11.00
Saskatoon	9.00	9.00	11.00
SELECT BACON HOGS.			
Toronto	$13.35	$14.35	$14.75
Montreal	13.25	14.75	13.50
Winnipeg	13.50	13.50	13.50
Calgary	13.50	13.50	13.75
Edmonton	12.35	13.25	13.75
Prince Albert	13.50	13.50	13.10
Moose Jaw	13.40	13.40	13.15
Saskatoon	....	13.30	13.10
GOOD LAMBS.			
Toronto	$13.50	$13.75	$15.00
Montreal	12.00	12.00	12.50
Winnipeg	11.25	12.00	13.00
Calgary	11.25	11.75	12.00
Edmonton	10.50	11.00	11.50
Prince Albert	10.50	11.00	10.00
Moose Jaw	11.50	11.50	12.25
Saskatoon	10.25	11.00	....

U. S. INSPECTED HOG KILL.

Hogs slaughtered under federal inspection at seven centers during the week ended Friday, August 30, 1929:

	Wk. ended Aug. 30.	Prev. week.	Cor. wk., 1928.
Chicago	115,360	112,870	67,382
Kansas City, Kan.	38,997	36,781	32,125
Omaha	30,460	38,449	21,220
*St. Louis	57,318	69,985	39,127
Sioux City	20,938	16,905	11,058
St. Paul	24,905	17,850	15,296
St. Joseph, Mo.	20,847	17,719	13,888
Indianapolis	12,871	16,046	9,325
New York City	27,703	26,502	21,253

*Includes East St. Louis, Ill.

See "Wanted" page for bargains.

PACKERS' PURCHASES

Purchases of livestock by packers at principal centers for the week ended Saturday, August 31, 1929, with comparisons, are reported to The National Provisioner as follows:

CHICAGO.

	Cattle.	Hogs.	Sheep.
Armour and Co.	7,149	5,138	19,397
Swift & Co.	6,744	5,386	20,916
Morris & Co.	2,389	3,068	8,557
Wilson & Co.	6,413	4,916	10,855
Anglo-Amer. Prov. Co.	1,263	2,274	....
G. H. Hammond Co.	2,740	2,052	....
Libby, McNeill & Libby	860	....	....

Brennan Packing Co., 7,084 hogs; Independent Packing Co., 1,638 hogs; Boyd, Lunham & Co., 1,815 hogs; Western Packing & Provision Co., 8,168 hogs; Agar Pkg. Co., 6,373 hogs; others, 23,841 hogs.

Totals: Cattle, 27,558; calves, 5,352; hogs, 71,954; sheep, 59,725.

KANSAS CITY.

	Cattle.	Calves.	Hogs.	Sheep.
Armour and Co.	3,470	1,090	5,630	3,364
Cudahy Pkg. Co.	3,450	1,009	3,579	3,305
Fowler Straub Co.	498	....	....	....
Morris & Co.	1,970	687	2,227	1,704
Swift & Co.	3,078	1,495	8,135	4,121
Wilson & Co.	3,986	769	4,136	3,292
Others	755	64	1,466	174
Total	17,207	5,114	25,173	15,960

OMAHA.

	Cattle and calves.	Hogs.	Sheep.
Armour and Co.	5,048	6,531	7,323
Cudahy Pkg. Co.	4,832	6,488	9,886
Dold Pkg. Co.	1,397	5,403	....
Morris & Co.	2,529	2,898	3,279
Swift & Co.	4,126	5,110	10,314
Eagle Pkg. Co.	7	....	....
Hoffman Bros.	32	....	....
Mayerowich & Vail	9	....	....
Omaha Pkg. Co.	41	....	....
J. Rife Pkg. Co.	15	....	....
J. Roth & Sons	89	....	....
So. Omaha Pkg. Co.	71	....	....
Lincoln Pkg. Co.	364	....	....
Nagle Pkg. Co.	202	....	....
Sinclair Pkg. Co.	181	....	....
Wilson & Co.	281	....	....
Others	....	20,444	....
Total	19,124	46,934	30,802

ST. LOUIS.

	Cattle.	Calves.	Hogs.	Sheep.
Armour and Co.	1,995	211	5,396	3,709
Swift & Co.	4,222	1,764	6,282	3,820
Morris & Co.	1,873	731	2,264	768
E. Side Pkg. Co.	1,354	....	1,885	....
Amer. Pkg. Co.	471	98	359	511
Heil Pkg. Co.	....	....	421	....
Others	4,983	956	12,888	1,681
Total	14,898	3,760	29,495	11,002

ST. JOSEPH.

	Cattle.	Calves.	Hogs.	Sheep.
Swift & Co.	3,365	662	9,693	14,071
Armour and Co.	1,841	391	5,760	4,380
Morris & Co.	1,433	268	4,253	2,444
Others	2,970	884	7,469	7,358
Total	9,609	2,205	27,175	28,253

SIOUX CITY.

	Cattle.	Calves.	Hogs.	Sheep.
Cudahy Pkg. Co.	2,508	173	7,286	4,790
Armour and Co.	2,540	172	7,154	5,294
Swift & Co.	1,724	172	3,926	3,713
Smith Bros.	3	2	82	....
Others	1,749	120	12,800	69
Total	8,524	639	31,248	13,866

OKLAHOMA CITY.

	Cattle.	Calves.	Hogs.	Sheep.
Morris & Co.	2,214	1,392	2,881	183
Wilson & Co.	2,189	1,452	3,075	248
Others	98	....	633	....
Total	4,501	2,844	6,589	431

Not including 151 cattle and 1,292 hogs bought direct.

WICHITA.

	Cattle.	Calves.	Hogs.	Sheep.
Cudahy Pkg. Co.	861	397	2,957	667
Jacob Dold Co.	289	50	2,142	54
Fred W. Dold	53	....	342	....
Wichita D. B. Co.	25	....	....	....
Dunn-Ostertag	93	....	....	....
Keefe-LeStourgeon	9	....	....	....
Total	1,330	447	5,441	721

Not including 68 cattle and 5,953 hogs bought direct.

DENVER.

	Cattle.	Calves.	Hogs.	Sheep.
Swift & Co.	759	112	1,914	2,746
Armour and Co.	602	143	1,101	4,460
Blayney-Murphy Co.	269	38	1,235	....
Others	317	77	1,223	279
Total	1,947	370	5,473	7,485

ST. PAUL.

	Cattle.	Calves.	Hogs.	Sheep.
Armour and Co.	2,568	2,809	9,045	4,782
Cudahy Pkg. Co.	397	962	....	....
Hertz Bros.	149	84	....	....
Swift & Co.	4,190	4,165	11,977	7,085
United Pkg. Co.	1,368	170	....	16
Others	734	....	6,010	....
Total	9,406	8,190	27,032	11,883

MILWAUKEE.

	Cattle.	Calves.	Hogs.	Sheep.
Plankinton Pkg. Co.	1,320	2,457	12,027	1,622
Swift & Co.	....	....	....	1,746
United D. B. Co.	37	....	....	....
R. Gumz & Co.	115	51	108	43
Armour and Co.	514	1,201	....	....
N.Y.B.D.M. Co.	17	....	....	....
Others	444	265	97	312
Total	2,447	3,974	12,232	3,723

INDIANAPOLIS.

	Cattle.	Calves.	Hogs.	Sheep.
Foreign	1,309	2,009	27,074	7,950
Kingan & Co.	1,567	607	10,714	1,146
Armour and Co.	327	41	1,830	76
Indianapolis Abt. Co.	873	36	....	1,579
Hilgemier Bros.	4	....	600	....
Brown Bros.	88	29	78	29
Schussler Pkg. Co.	21	....	465	....
Riverview Pkg. Co.	31	....	116	8
Meier Pkg. Co.	58	10	295	4
Ind. Prov. Co.	72	....	357	20
Maas Hartman Co.	28	7	....	....
Art Wabnitz	4	36	....	52
Hoosier Abt. Co.	15	....	....	....
Others	555	80	330	1,835
Total	4,952	2,855	41,859	12,699

CINCINNATI.

	Cattle.	Calves.	Hogs.	Sheep.
J. B. Ireton	58	58	....	....
Ideal Pkg. Co.	....	....	589	....
C. A. Freund	81	42	24	....
S. W. Galls Sons	....	6	....	592
J. Hilberg & Son	111	....	....	62
Gus. Juengling	211	137	....	83
E. Kahn's Sons Co.	659	348	1,921	609
Kroger G. & B. Co.	155	71	2,346	....
Lohrey Pkg. Co.	5	....	324	....
H. H. Meyer Co.	5	....	1,605	....
W. G. Rehn's Sons	131	69	....	....
A. Sander Pkg. Co.	6	....	1,265	....
J. Schlachter's Sons	170	163	....	219
J. & F. Schroth Co.	19	....	2,115	....
J. Vogel & Son	8	4	405	....
John F. Stegner	225	141	....	45
Foreign	826	417	6,443	5,988
Total	2,670	1,456	17,037	7,598

Not including 350 cattle and 5,408 hogs bought direct.

RECAPITULATION.

Recapitulation of packers' purchases by markets for week ended Aug. 31, 1929, with comparisons:

CATTLE.	Week ended Aug. 31.	Prev. week.	Cor. week, 1928.
Chicago	27,558	27,318	23,465
Kansas City	17,207	17,544	16,515
Omaha (incl. calves)	19,124	18,041	15,098
St. Louis	14,898	14,205	15,693
St. Joseph	9,609	9,435	10,535
Sioux City	8,524	8,951	7,426
Oklahoma City	4,501	4,393	3,877
Wichita	1,330	1,777	2,074
Denver	1,947	2,271	....
St. Paul	9,406	8,246	9,902
Milwaukee	2,447	2,758	2,939
Indianapolis	4,952	4,790	6,256
Cincinnati	2,670	3,418	2,118
Total	124,173	123,147	115,898
SHEEP.			
Chicago	59,725	62,368	55,739
Kansas City	15,960	27,918	25,833
Omaha	30,802	31,140	30,492
St. Louis	11,002	12,331	10,320
St. Joseph	28,253	27,563	17,891
Sioux City	13,866	10,487	5,005
Oklahoma City	431	311	196
Wichita	721	813	1,146
Denver	7,485	7,646	....
St. Paul	11,883	7,565	7,597
Milwaukee	3,723	3,136	2,283
Indianapolis	12,699	10,154	7,281
Cincinnati	7,598	8,703	1,224
Total	204,148	210,135	165,007
HOGS.			
Chicago	71,954	69,145	67,700
Kansas City	25,173	22,666	12,158
Omaha	46,934	53,781	43,767
St. Louis	29,495	23,837	17,602
St. Joseph	27,175	27,967	21,342
Sioux City	31,248	32,009	30,823
Oklahoma City	6,589	4,147	3,882
Wichita	5,441	4,556	7,719
Denver	5,473	5,533	....
St. Paul	27,032	20,628	14,639
Milwaukee	12,232	8,067	3,766
Indianapolis	41,859	36,431	28,803
Cincinnati	17,037	15,663	12,307
Total	347,642	324,700	264,508

CHICAGO LIVESTOCK

Statistics of livestock at the Chicago Union Stock Yards for current and comparative periods are reported as follows:

RECEIPTS.

	Cattle.	Calves.	Hogs.	Sheep.
Mon., Aug. 26	20,534	2,308	42,328	18,115
Tues., Aug. 27	8,224	2,539	28,684	24,433
Wed., Aug. 28	13,320	2,565	20,245	18,993
Thur., Aug. 29	8,111	1,842	20,010	17,516
Fri., Aug. 30	1,295	771	19,241	9,991
Sat., Aug. 31	300	200	6,000	500
This week	51,784	10,225	136,508	89,548
Previous week	52,101	11,497	119,684	96,943
Year ago	49,229	11,762	93,112	95,191
Two years ago	56,010	10,272	120,600	83,653

Total receipts for month and year to Aug. 31, with comparisons:

	Aug. 1929.	Aug. 1928.	Year 1929.	Year 1928.
Cattle	189,298	191,069	1,483,045	1,565,863
Calves	41,840	52,224	484,760	541,734
Hogs	523,018	418,299	5,347,031	5,886,183
Sheep	358,632	369,719	2,355,541	2,331,610

SHIPMENTS.

	Cattle.	Calves.	Hogs.	Sheep.
Mon., Aug. 26	5,289	1	6,670	845
Tues., Aug. 27	3,397	209	3,701	5,132
Wed., Aug. 28	3,443	18	3,319	6,587
Thurs., Aug. 29	3,058	50	2,419	8,283
Fri., Aug. 30	1,160	93	3,885	5,831
Sat., Aug. 31	100	....	1,000	1,000
This week	16,447	317	20,994	27,678
Previous week	15,270	219	22,996	30,441
Year ago	14,897	437	30,550	36,583
Two years ago	20,995	597	44,410	23,027

WEEKLY AVERAGE PRICE OF LIVESTOCK.

	Cattle.	Hogs.	Sheep.	Lambs.
Week ended Aug. 31	$14.00	$10.35	$ 4.75	$13.10
Previous week	14.25	10.45	5.50	13.00
1928	15.65	12.05	6.10	14.55
1927	11.75	9.50	5.90	13.40
1926	9.65	11.50	5.75	14.65
1925	11.80	11.90	7.25	14.65
1924	9.20	9.25	5.75	13.35
Av., 1924-1928	$11.60	$10.85	$ 6.15	$14.10

SUPPLIES FOR CHICAGO PACKERS.

Net supply of cattle, hogs and sheep for packers at the Chicago Stock Yards:

	Cattle.	Hogs.	Sheep.
*Week ended Aug. 31	35,400	113,500	62,300
Previous week	36,831	96,688	66,502
1928	34,332	62,562	58,608
1927	35,015	76,190	60,626
1926	41,208	85,390	55,197
1925	33,459	75,749	56,845
1924	37,994	90,111	62,796

*Saturday, Aug. 31, estimated.

HOG RECEIPTS, WEIGHTS, PRICES.

Receipts, average weights and tops and average prices of hogs, with comparisons:

	No. rec'd.	Avg. Wgt.	Prices Top.	Prices Avg.
*Week ended Aug. 31	136,500	257	$12.00	$10.35
Previous week	119,684	257	12.00	10.45
1928	93,112	245	13.10	12.05
1927	120,600	256	11.40	9.50
1926	111,913	277	14.35	11.50
1925	102,536	252	13.50	11.90
1924	124,981	242	10.20	9.25
5-yr. av., 1924-1928	110,600	254	$13.10	$10.85

*Receipts and average weights estimated.

CHICAGO HOG SLAUGHTERS.

Hogs slaughtered at Chicago under federal inspection for week ended Aug. 30, 1929, with comparisons:

Week ended Aug. 30	115,360
Previous week	112,870
Year ago	67,382
1927	84,100
1926	78,200
1925	87,800

CHICAGO HOG SUPPLIES.

Supplies of hogs purchased by Chicago packers and shippers during the week ended Thursday, Sept. 5, 1929, were as follows:

	Wk. ended Sept. 5.	Prev. week.
Packers' purchases	68,764	62,172
Direct to packers	24,482	36,887
Shippers' purchases	19,749	21,486
Total supplies	112,995	120,545

(Chicago livestock prices on opposite page.)

Ice and Refrigeration

REFRIGERATION NOTES.

The Stark Storage Co. has been incorporated at Canton, O., authorized capital 1,000 shares of stock, to operate cold and dry storage business and warehouse. Incorporators: P. O. McCully, H. J. Richards, E. E. McLaughlin.

W. E. Wendell, 823 Merrell ave., St. Petersburg, Fla., architect, is reported drawing plans for erecting a new cold storage warehouse, to cost $50,000, for an unnamed client.

A $500,000 cold storage and precooling plant is soon to be erected at Sarasota, Fla., by Sarasota Terminal Docks, Inc.

Subcontracts have been let by the Consolidated Gas & Electric Light & Power Co., Baltimore, Md., for constructing a new $175,000 cold storage warehouse at 416-30 S. Eutaw st.

D. C. Herndon has awarded contract for erecting a new cold storage plant at Temple, Tex.

MECHANICALLY-COOLED CARS.

(Continued from page 22.)

main header. Approximately 1,000 lbs. of silica gel is contained in these tubes.

How Temperature Is Controlled.

In normal use the apparatus operates on a fixed cycle. The lengths of the absorbing periods, as well as the time interval between, are fixed and constant. This timing is accomplished by means of a small thermostat power element. The gas fuel containers are placed below the car.

The temperature of the car is controlled by a thermostat which operates on a valve controlling the supply of gas to the burners heating the gel. The fuel consumption is about 135 lbs. of propane gas per ton of refrigeration. Propane gas is familiar to most people as the Pintsch gas used to illuminate passenger cars, etc.

The type of car used with this system at present* is a standard refrigerator car with such modifications as are necessary to adapt it to the installation of the refrigerating apparatus. It is 40 ft. 10½ in. over striking plates. The loading space is 35 ft. long, 8 ft. 1-⅜ in. wide and 6 ft. 10-7/16 in. high. The latter figure is the clear space under the evaporator drip pans.

*Described in a recent issue of Refrigerating Engineering.

Construction of the Car.

The car has a steel underframe, with a wood superstructure. The roof is wood except for the portion over the refrigerating apparatus, which is of steel and so designed as to be easily removable to provide access from the top when necessary.

As the frames supporting the absorbers are secured to the portion separating the loading space from the apparatus compartment, this partition is properly braced to carry the load.

The roof construction is made somewhat stronger than that of a standard car. This is to sustain the weight of the evaporator and the condensor, both supported from the roof framing.

The end construction at the end carrying the apparatus is of steel, the whole end being removable to permit the installation of absorbers and other units. The steel end is well reinforced to protect the apparatus from damage in case the car is subjected to rough treatment.

The interior of the space containing the apparatus is lined with insulating material and heavy sheet steel.

How Cars Are Insulated.

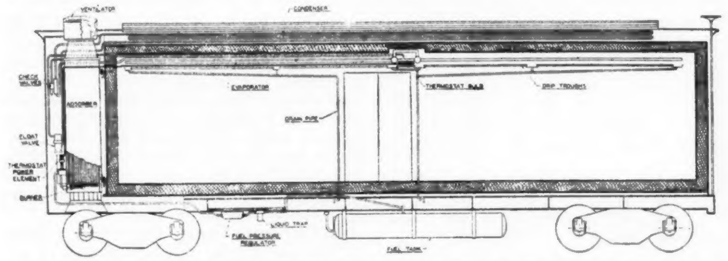
The amount of insulation has been materially increased over that used in the standard refrigerator car employing ice for the cooling medium. There are two reasons for this:

1—Lower temperatures than can be obtainable with ice are available with this system.

2—The temperatures which can be maintained with a mechanical system depend more on the heat absorption of the car than in a car cooled by ice.

The standard refrigerator car using ice has generally 3 in. of insulation on the roof, floor and sides. These cars have 3 in. in the floor, 5 in. in the sides and 6 in. in the roof.

The heat leakage of these cars is about 90 B.t.u. per hour per degree difference in temperature, or 15 lbs. of ice melting effect per 24 hours per degree difference. The values for the best constructed ice cars, having the same loading space, would be about 140 and 23, respectively.



MECHANICAL REFRIGERATION INSTALLED IN STANDARD CAR.

With this system of refrigeration, loading space is increased, the apparatus being at one end and occupying about as much space as is taken up by one bunker. Due to the lower temperatures obtainable, heavier insulation is used.

The fuel for activating the silica gel is carried in tanks under the car. These tanks hold a supply sufficient for about 9 day's operation. Gas fuel consumption is about 135 lbs. per ton of refrigeration.

Cars refrigerated by mechanical means—principally with the silica gel apparatus—are being used to transport frozen fish with satisfactory results.

Used to Ship Frosted Fish.

In one case a car loaded with haddock fillets was in transit eight days. The average outside temperature was 72 deg., iwth a maximum of 98 degs. and a minimum of 46 degs. The temperature of the fish at unloading was 21 degs. The maximum temperature during the trip was 24 degs and the minimum 16 degs.

In numerous instances cars of frozen fish have been sent from Atlantic ports to points in Texas and the Southern states with entire success. One has gone from Groton, Conn., to Los Angeles and another to San Francisco. At San Francisco the temperature on arrival was 17 degs. F.

The following information has been compiled by the Jacob Dold Packing Co. on the performance of mechanically refrigerated cars carrying fresh pork from Wichita, Kan., to Brooklyn, N. Y.:

Experiences of a Packer.

Trip No. 1—Duration of trip, 5 days; maximum outside temperature, 80 degs.; minimum outside temperature, 56 degs.; maximum temperature within car, 36 degs.; minimum temperature within car, 32 degs.; temperature within car when opened, 32 degs.

Trip No. 2—Duration of trip, 5 days; maximum outside temperature, 84 degs.; minimum outside temperature, 60 degs.; maximum temperature within car, 36 degs.; minimum temperature within car, 31½ degs.; temperature within car when unloaded, 32 degs.

Trip No. 3—Duration of trip, 5 days; maximum outside temperature, 82 degs.; minimum outside temperature, 56 degs.; maximum temperature within car, 32 degs.; minimum temperature within car, 30 degs.; temperature within car when unloaded, 32 degs.

Trip No. 4—Duration of trip, 5½ days; maximum outside temperature, 84 degs.; minimum outside temperature, 56 degs.; maximum temperature in car, 32 degs.; minimum temperature in car, 30 degs.; temperature within car when unloaded, 32 degs.

Trip No. 5—Duration of trip, 5 days; maximum outside temperature, 90 degs.; minimum outside temperature, 62 degs.; maximum temperature in car, 33 degs.; minimum temperature in car, 30 degs.; temperature in car when unloaded, 33 degs.

Trip No. 6—Duration of trip, 4 days; maximum outside temperature, 86 degs.; minimum outside temperature, 60 degs.; maximum temperature in car, 34 degs.; minimum temperature in car, 30 degs.; temperature in car when unloaded, 30 degs.

Fresh hog carcasses are also being handled from Arkansas City, Kan., and Dubuque, Ia., to Cleveland, O., with results similar to those cited above. Shipments of fresh meats from Chicago to Eastern and Southern points and from Omaha, Neb., to Florida points went through in very good condition.

CHAIN MEAT MARKETS.

(Continued from page 26.)

tion, which tends to show a loss for the market, particularly during the first year.

No "Pioneering" in Locations.

However, a chain would consider it rather dangerous policy to try to pioneer in locations that have been overlooked by a multitude of independent retailers; for, the chains do not yet have enough experience in the location and management of meat markets to wish to take the risk of innovations.

The proper location for a market depends upon the type of market that is to be established. The chain that wishes to hold the patronage of its customers by placing markets in many of the local stores must content itself with small markets, perhaps one-man markets in the back of the grocery stores.

The location of even so small a market is a problem requiring careful consideration. Chain grocery trade may flourish in many scattered neighborhoods, where long-established and respected independent retail meat-dealers have such a hold upon the meat trade that a chain store cannot expect to get it.

The volume of grocery sales is one index frequently used in selecting locations. A very large volume of grocery sales from a store indicates that there is probably adequate patronage for at least a small meat shop in connection. Even if the sales of groceries are not large there may be adequate trade for a meat shop if the reason for the small sales of groceries is competition with many other grocery stores.

Meat Market Location Important.

The proper locating of a meat market is more important than the proper locating of a grocery store, since the meat market requires more expensive equipment, and therefore mistakes in location are more costly.

Chains commonly study the location factors more carefully and take longer leases on the property in which they are to place meat departments.

In addition to the small neighborhood stores many of the chains are developing meat departments in their large, centrally located stores. Some of these stores are very large indeed, having a sales volume of $10,000 per week, or one-half million dollars per year from the one store.

These markets are, of course, located after a great deal of care and deliberation and after arrangements have been made for a reasonably long lease, as well as suitable remodeling of the building, in order to make the right kind of combination market. One chain, which has a number of such markets, takes 20-year leases on most of its properties.

Chains taking the longer leases, on properties for the larger combination stores, are more and more selecting locations on wide streets where parking facilities are adequate to take care of the growing automobile trade.

Trend Is to Better Equipment.

It is plainly evident that the trend in chain-store retailing of groceries is toward larger and more completely equipped stores and markets. Some of the chains have established large units which may almost be classified as show places, some of them in downtown sections but most of them—like the Remley Arcade in St. Louis, which has been purchased by a chain—in the suburbs or residential sections.

Most chain meat shops are located in the residential buying centers of the cities. Comparatively few chains are establishing markets in the downtown business sections, in the lower-class sections of the city, or in the country districts outside of the cities.

Even grocery departments have not

TABLE II.

Number of Markets Reported by Chains Co-Operating in This Study.

Chain No.	No. of stores.	Stores handling fresh meats.	Per cent of stores handling meats.
Eastern district:			
1	95	24	25.2
2	16	7	43.7
3	333	45	13.5
4	1,800	106	5.8
5	2	2	....
6	31	18	58.0
7	12	12	100.0
8	100	100	100.0
Southern district:			
9	7	3	42.8
10	10	4	40.0
11	50	47	94.0
12	17	8	47.0
13	24	24	100.0
14	387	180	46.5
Western district:			
15	57	57	100.0
16	2,300	750	32.6
17	98	7	6.9
18	82	36	43.9
19	13	13	100.0
20	30	16	53.3
21	300	49	16.3
22	53	53	100.0
Total	5,817	1,561	26.8

particularly flourished in the country, but with the increase of hard roads and improvements in trucking facilities, stores are being increased in the rural districts.

It is more difficult to maintain an isolated meat shop than an isolated grocery unit, since deliveries must be more frequent and special supplies may be called for on shorter notice than for the grocery departments. There is an indication, however, that chain meat shops are to see further progress in rural communities.

Equipping a Meat Shop.

Recent inventions in refrigeration as applied to small-scale units are effecting a veritable revolution in the type of equipment now required for a retail meat shop that expects to hold its own in competition with other modern shops.

Since the chain is better financed than the independent retailer, it is commonly possible for it to equip better shops—this is perhaps part of the reason for the present expansion of chains in this field.

Some of the chains, particularly the larger ones that have many markets to equip, are able to get material price reductions on equipment, since most such items are sold at a price more than double the cost of manufacture. A greater part of the price is intended to cover sales expenses, service, and advertising.

One chain estimates cost of equipment at 40 per cent of list price. In order to obtain equipment at such a cost it is obliged to manufacture a part for itself, but it gets material price concessions on most equipment purchases.

Why Chains Pay Less for Equipment.

Bad debt losses are high on equipment sold to independent retailers, and the equipment companies prefer to sell for cash in large quantities, on a much more favorable price basis. In most equipment purchases some old equipment is turned in on a trade for the new, and since much of it has little resale value the trade-in ordinarily constitutes a substantial price concession.

Complete, new, modern equipment—including sectional boxes, refrigerated show counters, window refrigeration, and grinders and slicers—will vary from approximately two thousand dollars for the small one- or two-man shop, up to eight or ten thousand dollars for the large shop employing eight or ten men. A reasonable allowance of 15 per cent for depreciation and obsolescence in such equipment would constitute a charge of ¾-2 per cent of sales.

An incomplete investigation of equipment costs in independent grocery-meat stores with depreciation and obsolescence charged at 15 per cent per year shows a depreciation cost of 1.6 per cent on sales on meat-market equipment. In U. S. Department of Agriculture Bull. 1442, based on 1925 figures, depreciation of meat-market equipment exclusive of refrigeration equipment was found to constitute a charge of .42 per cent on meat sales.

Attractive Fixtures Build Trade.

In the establishment of most markets it is not necessary to buy all equipment new. However, chain stores in adding meat departments to their grocery stores ordinarily wish to start with

Meat Chain Inventory

How often does the chain meat store take inventory?

In the Eastern district, from weekly to four or five times a year.

In the Southern district inventory was taken either each week or monthly, with the bulk showing weekly inventory.

In the Western district the bulk of the stores take inventory weekly, some every two weeks, others twice a month and others monthly.

In most cases the manager does the stock taking. In one case the road assistant, and in another the superintendent. In a number of cases the supervisor checks the manager.

modern, attractive shops, and are therefore obliged to start with new equipment.

Thus chains commonly spend more for equipment than do independent dealers going into business. Furthermore, chains more frequently cater to a cash-and-carry business, and it is well understood that window displays and counter displays are of tremendous value in this type of trade.

While the chain may purchase equipment at liberal concessions, the investment necessary for equipping a profitable chain market is large enough to warrant careful planning.

TABLE III.
Volume of Sales per Week.

	Average.	Large shops.	Small shops.	Minimum sales.
Eastern district..	$1,000	$ 1,500	$500	$500
	587	750	350	350
	2,000	10,000	700	600
	450	1,800	375	300
	600	.....	...	400
	535	1,200-1,500	350-400	...
Southern district.	750	1,000	500	Expect all to make money
	600	850	375	300
	450	650	275	300
	400	700	200	200
	500	750	300	300
	300	.....	...	...
Western district.	325	1,000	200	300
	600	.....	...	...
	574	1,000	250	250
	400	700	250	250
	663	1,675	400	...
	400	500	300	300
	500	1,500	200	200
	350	800	200	200
Avge. all chains		$502.85		

TABLE IV.
No. of Men Employed per Shop.

	One man.	One man and helper for rush hours.	Two men.	More than two men.
Eastern district.....	..	18	3	3
	57	0	37	8
	0	0	20	85
	10	3	4	1
	7	0	5	0
	40	"Boys after school"	40	20
Southern district....	2	1	1	3
	40	4	2	1
	5	3	0	0
	18	18	4	2
	165	0	15	0
Western district....	30	10	17	..
	0	1	3	0
	32	24	4	0
	7	2	3	1
	10	5	1	1
	4	5	32	8
	21	25	5	2
	448	119	196	135
Pctge. of total number of shops	49.9	13.2	21.9	15.0

Size of the Shop.

Sales per week averaged $625.78 per market in 1,552 markets reported by 20 chains. One large chain has average sales of $2,000 per week per market. Excluding the 2 chains with exceptionally large markets, the remaining 18 averaged $444.29.

There is frequently very great variation between the smaller markets and the larger markets within the chain. Table III shows the average sales per week and the range between the larger and smaller markets for the same chain reported by 20 of the chains from various parts of the United States.

The tendency is for the smaller markets to predominate in the chain, with a few large markets placed in central locations. The small shops no doubt predominate among chain markets because of the desire to combine meats with as many grocery stores as possible, in order to expand the grocery trade.

However, most chains will not continue operating any market selling less than $300 per week. Two chains reported $250 as a minimum, and 3 chains reported as low as $200. When it is realized that wages of meat-cutters commonly range from $30-$45 per week it is at once apparent that the wage bill alone represents a very high percentage of so small an amount as $200 in sales.

The One-Man Market Chain.

The one-man market predominates in grocery chains. Out of a total of 898 markets for which reports on size were made, 448 or 49.9 per cent were markets employing but one man; 119, or 13.3 per cent, employed one man regularly and a helper for rush times; 196, or 21.8 per cent, employed two men regularly; and 135, or 15.0 per cent, employed more than two men regularly. Table IV shows some of the variations in size of shop, rated according to number of men employed.

Selection and Training of Market Managers.

The personnel problem is the one most difficult in the management of chain meat markets. More ability and more initiative are required in a meat-market manager than in a grocery manager. Wholesale meat cuts are delivered to the store; the manager is responsible for selling the various retail cuts at a profit.

The perishability of the product greatly complicates the management of the local unit. It is therefore much more difficult to check the operations of the meat manager than of a grocery manager, and more must depend upon the confidence of the management in the ability and the honesty of the men employed.

Chains have commonly preferred to employ experienced meat-cutters to manage their markets rather than to train young men. In opening up a new chain of markets this is practically necessary because the executives of the grocery chain have enough problems to absorb most of their energies without taking on the additional problem of training green personnel for this work.

However, the problem of chain selling of meat and the attitude of the meat salesmen are not the same for a chain as they commonly are for the independent market, and much must be

unlearned by experienced meat-cutters familiar with customary meat-retailing practice.

Meat Cutting Skill Overestimated?

The chain executives, as grocery specialists, have commonly felt their incapacity in the meat line and perhaps have overestimated the skill and training required in cutting meat.

Some of the chains have had excellent results with the training of some of their younger men for their meat markets. Young men placed under the guidance of an experienced meat-cutter for training may soon develop sufficient expertness in cutting the meat, and may more readily acquire the new point of view essential for chain merchandising.

Some of the more attractive chain shops in the United States are now run by young men who have been recently trained by the chain. This training is accomplished, not in classes, but by placing the men under experienced cutters and moving them from shop to shop so that they may get the benefit of experience in different types of shops before they are given the responsibility of managing a shop.

Training Methods Vary.

Different chains require different periods of apprenticeship or preparation. Perhaps three months is a minimum, while some men need to serve much longer apprenticeships. In fact, some never develop the proper capacity for salesmanship necessary to handle a local market profitably.

Out of 22 companies reporting, 13 reported the general use of experienced men only. Seven reported a definite policy of training in order to use inexperienced men, and 2 reported the general policy of using one experienced man and one inexperienced man in each shop.

A number of chains do not undertake any regular training of green men at all, but depend entirely upon experienced cutters. In fact, the extension of the meat trade within chains has been so rapid during the last year or two as to make it impracticable to attempt to train all the men needed to run the various markets.

And the establishment and equipping of new shops as well as the determination of buying policies have absorbed so much of the attention of executives in charge of the meat business that they have not yet been able to concentrate on a training program.

Frequent Conferences Valuable.

Many chains reported that they do not attempt to train inexperienced men, but that they find their experienced cutters need a good deal of additional training. Most chains are holding regular conferences, perhaps two meetings each month, for practical discussions of such matters as methods of cutting meat, selling the slow-moving cuts, window and counter displays, and an analysis of current conditions and the products to be pushed for the week.

One company that has been particularly effective in this line makes each of these meetings very democratic experience meetings, and impresses upon its men the importance of the meeting by the attendance of a vice-president or some other important officer of the company.

TABLE V.
Labor Turnover and Experience With Labor Unions as Reported by Chains.

	Per cent labor turnover.	Union help employed?	Disagreements or misunderstandings?
Eastern district.	5	No	....
	7¾	No	....
	20	No	....
	Low	Do not discriminate	No difficulty
Southern district.	50 (small chain)	Yes	No trouble
	(No report)	Yes	Little agitation at times
	3	Yes	Some want two hours at noon
	20	No	....
	12	No	....
Western district	35	No	....
	10	Some places	In some localities trouble all the time; in others, none at all
	50	Usually	Some trouble over hours
	25	No	....
	50	Yes	Union cut Saturday hours from eight to seven; one hour less than grocery shops
	25	Yes	Meat-cutters' union strong; work nine hours
	12	Yes	No difficulty
	25	Both	No difficulty

This officer frankly adopts the policy of stimulating discussion and increasing the interest of the men in their work by showing a real appreciation of their problems and a willingness to cooperate by serving the local manager rather than by merely handing down instructions to the local manager from the central office.

Morale and Public Opinion.

Morale is particularly important in this trade, for the local manager has much personal responsibility and must have confidence in the management and an appreciation of their efforts. It is fortunate that most chain-store executives have had retail-store experience and that they feel and appreciate the problems of the men in the retail store.

If the central headquarters of chain-store companies ever become staffed with men that have not had that experience and do not feel that sympathy, the management problem of the selection, training, and control of local managers will become much more complex.

TABLE VI.
Wage-Payment Systems Reported by Chains

	Wages per week.	Per cent on total sales	Per cent on net profit
Eastern district..	$35-$50	0	0
	35- 40	0	8
	25- 35	1	0
	35- 80	1 above $1,000; ½ above $2,000	0
	28- 40	0	0
(1)	25- 40	1	0
	35- 45	1 above $1,000 when manager receives $60	0
Southern district..	45	0	12½
	40- 50	0	5
	35	0	25 each quarter
	25- 40	0	0
(2)	30- 45	0	0
(3)	30- 45	0	0
Western district..	35- 40	0	0
(4)	30- 40 (Guarantee 40 per week)	....	30
	35- 40	0	30 (to part)
	25	0	25
	175-190 per month	0	20 (distributed to all employees)
	40	0	0
	25- 45	0	0
	30- 45	0	0

(1) Also contest for prizes. (2) Prizes as incentives; per cent on sales. (3) Prizes as incentives. (4) Bonuses figured on rate of $30 per week.

The public seems to have the opinion that chain stores are cold-blooded organizations in which personalities have little part. Every effective chain-store executive, however, knows the fallacy of any such assumption, when there is the problem of control of a large number of scattered individuals who must work alone most of the time.

Some Training Systems in Use.

EASTERN DISTRICT: Start as store boy and work up; two or three months with experienced man; place apprentice with man who knows the business; with more stores expect to work up second man; use young men as helpers with good men.

SOUTHERN DISTRICT: Helpers trained for new market; work in regular markets; train the best boys; shift them from place to place.

WESTERN DISTRICT: Train from two to four weeks under a master; six to eight weeks' training, semi-monthly meetings. Cutting tests; shift apprentices from market to market.

Wages and Other Incentives.

The weekly wages more commonly reported for employees in retail meat departments were $35 to $45 per week. Aside from the Southeast, where some chains sometimes pay a minimum of $25 per week, wages throughout the United States appear to be surprisingly uniform.

This is perhaps in part due to the ease with which the meat-cutter may move from one city to the other, since this is a profession more or less similar to the barber trade in which a man may leave one shop and readily take up his duties in another.

This, by the way, introduces another complication into the chain-store trade. Meat-cutters are not particularly noted for constancy, and chains have had the occasional experience of finding a shop some morning without a cutter, without previous notice.

Absent Employees a Problem.

This is a real problem for the chain—a much worse problem for the chain than for the independent market manager, who is himself a meat-cutter and can get along if one of his men quits suddenly. The chains are obliged to keep apprentices in training—certain men are held in reserve to fill in in shops when the manager or cutter does not show up.

However, the greatest incentive that the chain may offer is constant employment, and a liberal wage. These make the man somewhat hesitant about leaving, since he knows that he may not be reinstated and that he may not find another berth quite so good.

There seems to be a common impression that chain-store wages for meat-cutters are lower than wages paid by independent stores. This is probably not true; in fact, the reverse may be true, since the chains are in a more vulnerable position and find it necessary to offer attractive incentives to their men.

Some chains, after a bit of experience in the meat trade with a few shops manned by men inadequately paid, have decided that there is entirely too much grief in the management of meat shops and have decided to discon-

tinue further efforts in that field.

Chains Pay Adequate Wages.

There are abundant indications that the chain meat shop will never survive under a condition of the grinding-down of their employees under low salaries and poor working conditions—accusations sometimes made in publicity of organizations opposed to the chains.

Most chains pay their men a straight weekly wage without commissions or bonuses of any kind. On the contrary, some chains, particularly those that place on their managers the responsibility of handling large and important shops, offer additional incentives based either on total sales or on net profits.

One large chain pays a wage of from \$30 to \$40 a week, guaranteeing \$40 per week or more to most of its men by the addition of 30 per cent of the net profit. Other percentages on net profit paid by chains are reported as follows: Eight, 12½, 30 per cent (to part of the men); 25, 25 per cent (calculated each quarter); 10 and 20 per cent.

A Premium on Economy.

Payment of percentage on net profits serves to call the attention of the man not only to his responsibilities, but to his opportunities in watching all items of cost, particularly in watching the item of waste materials that go into the scrapbox and are not sold.

There is, however, a difficulty in using percentage of net profits in the payment of most managers, since net profit is—or at least appears to the men to be—a rather theoretical computation of costs and profits based more upon the opinion of the management as to what they want to show as profits than upon any definite items which the manager himself may check. Any misunderstanding of such a payment system leads to suspicion and poor morale.

On account of the simplicity of the method, some chains have used instead a percentage on total sales of one per cent, or one-half of one per cent, depending upon size of the market and the base wage paid. One chain reported the effective use of prizes as an incentive to sales, particularly in special sales campaigns.

Chains Offer Opportunities.

The sales meetings mentioned above serve as incentives to some degree if carried out on a basis that tends to emphasize the democratic good-will in the organization. Men like to stay where they feel that they are appreciated.

Opportunities for advancement to the post of buyers or supervisors, or to the management of larger shops within the chain, are now factors in the holding of high-grade men. Such opportunities are now particularly important in the chain-store trade on account of the rapid increase in numbers of chain markets.

There is a glamor in attachment to a large organization that frequently holds a man at lower wages. The size and diversity of the company provides a kind of insurance to the man of average ability that he will be taken care of in emergencies and will be placed where he may do his work most effectively.

Supervision of chain markets, buying, deliveries, pricing policies, accounting, warehouses and packing plants will be discussed next week.

Ham Retainer Cleaning Simplified by New Machine

Cleaning ham retainers always has been an expensive task in the meat packing plant. Formerly all of this work was done by hand.

The advent of high pressure washing for plant cleaning work, however, and the development of new machines for washing these and other utensils, such as meat loaf pans, has cheapened the operation considerably. But there still has remained the problem of removing incrusted and hard foreign matter that could not be removed by washing.

To date the work has been done principally by hand with steel brushes, steel wool and weak acid solutions. When it is done frequently retainers can be cleaned thoroughly by these methods, but when, due to a rush of business, or for any other reason, cleaning to remove incrusted matter is delayed until such cleaning is necessary, the task becomes a difficult and expensive one, and the results are not always what they should be.

Recently a new machine has been placed on the market to simplify the work of removing from ham retainers this incrusted matter that can not be removed in washing.

Operation of the Machine.

Essentially the device consists of a metal shell through the center of which a shaft extends lengthwise. On this shaft is built an arrangement for holding firmly two rows of retainers.

In loading the machine one row of retainers is placed on a metal base plate. They are held in place by another metal plate which is clamped down against them through the action of two cams operating on threaded shafts near each end of the shaft. The shaft is then revolved through an angle of 180 degs. and the second row of retainers placed in position in a similar way.

Before the retainers are placed in the machine, a handful of steel chips is placed in each retainer. Cleaning is accomplished by revolving the retainers at a speed of 36 r. p. m. The abrasive action of the chips removes the incrusted matter.

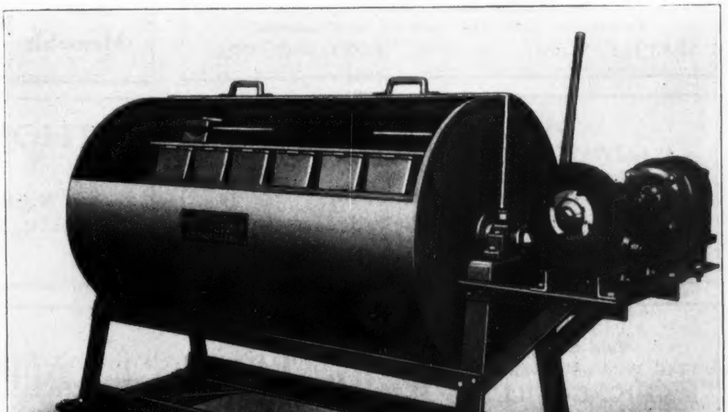
The shell is filled about one-third full of water, through which the retainers revolve during the cleaning operation. No cleansing agent is added to the water. Power is supplied by a 1-h.p. motor. A steel brush operated by power is mounted on one end of the machine for cover cleaning.

Results From the Operation.

In one plant in Chicago where this machine is in operation very good results are being secured. The cleaning time varies with the amount of incrusted matter on the retainers, and may be from five minutes to half an hour. In this case the machine holds 12 retainers.

This plant is finding it more economical and satisfactory to clean the retainers frequently, rather than to wait until they become very badly incrusted. This company is also finding that retainers cleaned in this machine do not collect incrusted matter as quickly as formerly, and they believe that corrosion is not as rapid.

The machines are being built in a variety of sizes and are being furnished in black and galvanized iron. It is being manufactured by A. Rispel & Co., Chicago, Ill.



NEW MACHINE REDUCES COST OF HAM RETAINER CLEANING.

The machine is particularly useful for removing incrusted material that can not be removed by ordinary washing methods. A handful of steel shavings is placed in each retainer before it is placed in the machine and the retainers revolved through water at a speed of 36 r.p.m. The abrasive action of the shavings polish the interior of the retainers. The steel brush is used for cleaning retainer covers.

Chicago Section

Karl M. Zaeh, of the Louisville Provision Co., Louisville, Ky., was a business visitor in the city this week.

—

J. C. Good, well-known packinghouse executive of Los Angeles, Calif., was a visitor in the city this week.

—

Henry Cohn, president, Automatic Linker, Inc., New York City, was in Chicago for a day or two this week.

—

Packers' purchases of livestock at Chicago for the first four days of this week totaled 25,435 cattle, 4,730 calves, 49,819 hogs and 49,931 sheep.

—

Wm. B. Rider of the beef sales department of Libby, McNeill & Libby, Chicago, spent his vacation recently touring through the Eastern states with his family, returning on the northern route through Canada.

—

Provision shipments from Chicago for the week ended Aug. 24, 1929, with comparisons, were as follows:

	Last wk.	Prev. wk.	Cor. wk., 1928.
Cured meats, lbs.	22,446,000	22,530,000	21,570,000
Fresh meats, lbs.	36,930,000	32,936,000	33,889,000
Lard, lbs.	11,505,000	8,847,000	8,558,000

—

Reports from John W. Hall, well-known Chicago broker, who has been taking a well-deserved rest at Battle Creek, Mich., for several weeks, are to the effect that he is feeling much better and that he expects to be back in the harness soon.

—

J. T. Webster, export sales department, Cudahy Packing Co., Chicago, returned this week from a vacation which he spent at Kansas City and vicinity where he was born and raised. He reports that the thermometer reached 105 degrees in the shade while he was there.

—

One of the shining lights among the packer-golfer fraternity of Chicago and vicinity is Sam J. Fine of the Patent Casing Co., Chicago. Sam is just now busy receiving congratulations for having won on Labor Day the club championship of the Glenwoodie Country Club for the second time in three years.

—

Wm. Whitfield Woods, president of the Institute of American Meat Packers, and H. R. Davison, director of the Institute's Departments of Waste Elimination and Live Stock, attended a meeting of the advisory committee to the National Board on Swine Production Policy held Friday, September 6, at Indianapolis.

—

A. T. Nancarrow, of the Gippsland Co-operative Bacon Curing Co., Ltd., Dandenong, Australia, was a visitor in Chicago this week. Mr. Nancarrow—whose father W. H. Nancarrow, is manager of this cooperative packing plant —has been spending some months in the United States observing packing plant operation methods here.

—

Among packer executives from out of town who were in Chicago during the past week were: M. F. Cudahy, Cudahy Brothers Company, Cudahy, Wis.; E. J. Cushman, Geo. A. Hormel & Company, Austin, Minn.; G. M. Foster, John Morrell and Company, Ottumwa, Iowa; F. C. Gates, Jacob E. Decker & Sons, Mason City, Iowa; W. F. King, Kingan & Company, Indianapolis; L. F. Prior, T. M. Sinclair & Co., Cedar Rapids, Iowa; R. A. Rath, Rath Packing Co., Waterloo, Iowa; R. S. Sinclair, T. M. Sinclair & Co., Cedar Rapids, Iowa; G. L. Talley, Jacob Dold Packing Co., Buffalo, N. Y.; A. C. Bolz, Oscar Mayer & Co., Madison, Wis.

PACKER LEADER PASSES ON.

Frederick R. Burrows, provision trade and hog market authority, and an executive of Swift & Company for many years, passed away on the afternoon of September 4 at his home at 7300 South Shore Drive, Chicago, at the age of 67. He was beloved by his associates and respected by the entire trade. His genial presence and wise counsel will be missed by every man in the meat and livestock industries who had the privilege of his acquaintance and his friendship.

His health had not been good for several years, although he insisted on staying in the harness up to within a few days of his death. He suffered a heart attack on Monday, and passed away two days later, with his devoted wife and three sons around him.

Born at Medford, Mass., in 1862, he came to Chicago in early childhood and as a boy attended the Moseley public school. His connection with the industry began at an early age, for as a boy of 16 he went to Europe as caretaker for a load of hogs shipped by his father, a livestock trader. His first experience in merchandising was as salesman for the New Haven Clock Co., where he had as a fellow-salesman Richard W. Howes, later his colleague as a Swift executive up to the time of his death.

FREDERICK R. BURROWS.

He joined Swift & Company in 1887, while Gustavus F. Swift was still a beef packer. When Swift went into pork packing, Fred Burrows and Louis F. Swift worked together in the hog division, and later in the provision department.

In 1913 Mr. Burrows went with the National Packing Co. as a department head and later was made vice president and general manager of the G. H. Hammond Company, a Swift subsidiary. For many years past he has been associated with Vice-President G. F. Swift in an executive capacity in the provision department.

Mr. Burrows was always interested in industry affairs, and was for several years a director of the American Meat Packers' Association and chairman of important trade committees.

He married Jenny M. Stone in 1884, and "Mother" Burrows was almost as widely known and respected by executives in the industry as her genial husband or their three splendid sons, Robert Burrows, Fred S. Burrows and Walter M. Burrows. The latter was named for his uncle, the late Walter F. Burrows, president of Libby, McNeill & Libby. Robert Burrows is one of the leaders in the packinghouse brokerage fraternity, he and his brother Fred being members of the firm of J. C. Wood & Co.

Funeral services were conducted by Dr. Brigham at the church of St. Paul's-on-the-Midway, Chicago, on Saturday, September 7. The church was crowded with associates and friends within and outside the industry. The pall-bearers, all intimate associates, were R. W. Howes, H. C. Carr, R. W. Carter, R. C. McManus, J. F. Smith and W. J. Sutherland. Burial was at Oakwood.

TRADE GLEANINGS

The new buildings of Hopfmann Brothers, Clinton, Mass., meat packers, will be completed about the middle of September.

The Buckeye Cotton Oil Co., Cincinnati, O., Procter & Gamble subsidiary, is reported as having acquired the Dixie Cotton Oil Mill, Memphis, Tenn., and Louisville Cotton Oil Co. plant at Louisville, Ky.

The Smith-Douglas Co., Danville, Va., is planning to construct a fertilizer plant at that point, at approximate cost of $50,000.

J. Allan & Sons, San Francisco, Calif., have awarded contracts for construction of four-story abattoir, estimated to cost $90,000.

Weber & Ritter, Sumner, Wash., meat packers, are improving their present plant, including the installation of new rendering equipment.

The Boise Butcher Co., Boise, Ida., is making extensive alterations and additions to the present plant, including additional refrigeration equipment, new curing room, beef cooler and a larger sausage department.

Chicago Provision Markets

Reported by THE NATIONAL PROVISIONER DAILY MARKET SERVICE

CASH PRICES.

Based on actual carlot trading, Thursday, Sept. 5, 1929.

Regular Hams.

	Green.	S. P.
8-10	21½	22
10-12	20½	21
12-14	19½	20
14-16	19	19¾
16-18	17¾	19¾
18-20	17½	....
10-16 range	19½	....
16-22 range	17½	....

S. P. Boiling Hams.

	H. Run.	Select.
16-18	19¾	20¼
18-20	19¾	20¼
20-22	19¾	20¼

Skinned Hams.

	Green.	S. P.
10-14	20	22
14-16	19¾	21¾
16-18	18¾	21
18-20	17½	20
20-22	16½	18¼
22-24	15¾	16½
24-26	14¾	16¼
25-30	13½	16
30-35	13¼	15½

Picnics.

	Green.	S. P.
4-6	14½	14¼
6-8	13	13¾
8-10	12¼	12
10-12	12¼	12
12-14	12¼	12

Bellies.*

	Green.	Cured.
6-8	21½	21¼
8-10	20	20
10-12	17½	18
12-14	16½	16¾
14-16	16	16½
16-18	15¾	16

*Square Cut and Seedless.

D. S. Bellies.

	Clear.	Rib.
14-16	14⅜	....
16-18	14¼	....
18-20	14⅛	14⅛
20-25	13⅞	13⅞
25-30	13¾	13¾
30-35	13⅝	13⅝
35-40	13½	13½
40-50	13¼	13¼

D. S. Fat Backs.

8-10	10¼
10-12	10½
12-14	10¾
14-16	11¼
16-18	11¾
18-20	12¾
20-25	13½

D. S. Rough Ribs.

45-50	13
55-60	12¾
65-70	12½
75-80	12¼

Other D. S. Meats.

Extra short clears	35-45	14
Extra short ribs	35-45	14
Regular plates	6-8	11½
Clear plates	4-6	9½
Jowl butts		8 @ 8¼

FUTURE PRICES.

SATURDAY, AUGUST 31, 1929.

	Open.	High.	Low.	Close.
LARD—				
Sept.	11.87½	11.90=	11.85	11.85-87½
Oct.	12.00	12.02½	12.00	12.00
Nov.	12.10	....	....	12.10
Dec.	12.12½	12.17½=	12.12½	12.17½ax
Jan.	12.42½	12.47½	12.40=	12.42½
CLEAR BELLIES—				
Sept.	13.60	13.62½	13.55	13.55b
Oct.	13.77½	13.80	13.77½	13.80ax
Jan.	....	....	....	14.00ax
SHORT RIBS—				
Sept.	12.15	....	....	12.15
Oct.	....	....	....	12.80ax

MONDAY, SEPTEMBER 2, 1929.

HOLIDAY — NO MARKET.

TUESDAY, SEPTEMBER 3, 1929.

	Open.	High.	Low.	Close.
LARD—				
Sept.	11.85	11.95	11.85	11.95
Oct.	12.05	12.07½	12.02½	12.07½
Nov.	....	....	....	12.12½n
Dec.	12.25	12.25	12.22½	12.22½
Jan.	12.42½	12.45	12.42½	12.45ax
CLEAR BELLIES—				
Sept.	13.40	13.47½	13.25	13.47½b
Oct.	....	....	....	13.80ax
Jan.	13.70	13.75	13.70	13.75
SHORT RIBS—				
Sept.	....	....	....	12.12½n
Oct.	....	....	....	12.80ax

WEDNESDAY, SEPTEMBER 4, 1929.

	Open.	High.	Low.	Close.
LARD—				
Sept.	11.97½	11.97½	11.95	11.95ax
Oct.	12.10	12.10	12.07½	12.07½ax
Nov.	....	....	....	12.12½n
Dec.	12.27½	12.27½	12.20=	12.20=ax
Jan.	12.47½	12.47½	12.42½	12.42½ax
CLEAR BELLIES—				
Sept.	13.50	13.50	13.40	13.42½ax
Oct.	13.55	13.55	13.50	13.50ax
Jan.	13.50	13.50	13.50	13.50ax
SHORT RIBS—				
Sept.	....	....	....	12.15n
Oct.	....	....	....	12.80n

THURSDAY, SEPTEMBER 5, 1929.

	Open.	High.	Low.	Close.
LARD—				
Sept.	11.92½	11.92½	11.90	11.90ax
Oct.	12.02½=	12.02½=	12.00	12.00=
Nov.	....	....	....	12.05n
Dec.	....	....	....	12.15b
Jan.	....	....	....	12.37½ax
CLEAR BELLIES—				
Sept.	13.25	13.42½	13.25	13.42½b
Oct.	13.30	13.45	13.30	13.45ax
Jan.	....	....	....	13.45ax
SHORT RIBS—				
Sept.	....	....	....	12.15n
Oct.	....	....	....	12.80n

FRIDAY, SEPTEMBER 6, 1929.

	Open.	High.	Low.	Close.
LARD—				
Sept.	11.87½	11.87½	11.80	11.82½=b
Oct.	11.92½	11.92½	11.92½	11.92½ax
Nov.	....	....	....	11.95
Dec.	12.12½	12.12½	12.05	12.05
Jan.	12.37½	12.37½	12.30	12.30ax
CLEAR BELLIES—				
Sept.	13.10	13.10	13.10	13.10
Oct.	13.20	13.20	13.12½	13.12½ax
Jan.	13.25	13.25	13.20	13.20ax
SHORT RIBS—				
Sept.	....	....	....	12.15n
Oct.	....	....	....	12.80n

Key: ax, asked; b, bid; n, nom.; = split.

CHEMICALS AND SOAP SUPPLIES.

(Special Report to The National Provisioner.)

New York, Sept. 4, 1929.—Extra tallow, f.o.b. seller's plant, 7⅝@7¾c lb.; Manila cocoanut oil, tanks, New York, 6¾c lb.; Manila cocoanut oil, tanks, coast, 6⅜c lb.; Cochin cocoanut oil, barrels, New York, 10@10¼c.

P. S. Y. cottonseed oil, barrels, New York, 10@10¼c lb.; crude corn oil, barrels, New York, 9½@9¾c lb.; olive oil foots, barrels, New York, 9¼@9¾c lb.; 5 per cent yellow olive oil, barrels, New York, $1.15@1.20 gal.

Crude soya bean oil, barrels, New York, 11½@11¾c lb.; palm kernel oil, barrels, New York, 9@9½c lb.; red oil, barrels, New York, 11@11½c lb.; Nigre palm oils, casks, New York, 7½@7¾c lb.; Lagos palm oil, casks, New York, 8¼@8½c lb.; glycerine soaplye, 7c lb.; glycerine, C. P. 13c lb.; glycerine, dynamite, 12c lb.

CHICAGO RETAIL MEATS

Beef.

	Week ended, Sept. 4, 1929. No. 1.	No. 2.	No. 3.	Cor. wk. 1928. No. 1.	No. 2.	No. 3.
Rib roast, hvy. end	35	30	16	35	30	16
Rib roast, lt. end	45	35	20	45	35	20
Chuck roast	32	27	21	38	33	21
Steaks, round	60	50	30	55	50	25
Steaks, sirl. 1st cut	50	40	25	60	45	22
Steaks, porterhouse	60	45	25	75	45	29
Steaks, flank	28	25	18	28	25	18
Beef stew, chuck	27	22	15	27	22	17
Corned briskets, boneless	32	28	18	28	24	18
Corned plates	20	18	10	20	15	10
Corned rumps, bnls.	25	22	18	25	22	18

Lamb.

	Good.	Com.	Good.	Com.
Hindquarters	35	33	40	30
Legs	36	34	42	30
Stews	22	15	25	15
Chops, shoulder	25	20	25	20
Chops, rib and loin	50	25	60	25

Mutton.

Legs	26	..	26	..
Stew	14	..	10	..
Shoulders	16	..	16	..
Chops, rib and loin	35	..	35	..

Pork.

Loins, 8@10 av.	34	@36	38	@40
Loins, 10@12 av.	32	@34	34	@37
Loins, 12@14 av.	28	@30	32	@34
Loins, 14 and over	24	@25	26	@28
Chops		@38		@40
Shoulders	20	@22		@27
Butts	25	@27		@32
Spareribs	16	@17		@17
Hocks		@12		@14
Leaf lard, raw		@14		@12½

Veal.

Hindquarters	35	@40	35	@40
Forequarters	24	@26	24	@28
Legs	35	@38	35	@40
Breasts	16	@22	16	@22
Shoulders	20	@22	18	@22
Cutlets		@50		@50
Rib and loin chops		@40		@50

Butchers' Offal.

Suet	@ 4	@ 5½
Shop fat	@ 2½	@ 3
Bone, per 100 lbs.	@50	@50
Calf skins	@18	@22
Kips	@16	@21
Deacons	@12	@12

CURING MATERIALS.

	Bbls.	Sacks.
Nitrite of soda, l. c. l. Chicago	9¾	
Saltpeter, 25 bbl. lots, f.o.b. N. Y.:		
Dbl. refined granulated	5⅝	5½
Small crystals	7⅛	
Medium crystals	7⅝	
Large crystals	8⅛	
Dbl. rfd. gran. nitrate of soda	3⅝	3½
Less than 25 bbl. lots, ⅛c more.		
Boric acid, carloads, pwd., bbls.	8¾	8¼
Crystals to powdered, in bbls., in 5 ton lots or more	9¼	9⅜
In bbls. in less than 5-ton lots	8½	9
Borax, carloads, powdered, in bbls.	5	4¾
In ton lots, gran. or pow., bbls.	5	4¾

Salt—

Granulated, car lots, per ton, f.o.b. Chicago, bulk	$6.60
Medium, carlots, per ton, f.o.b. Chicago, bulk	9.10
Rock, carlots, per ton, f.o.b. Chicago	8.60

Sugar—

Raw sugar, 96 basis, f.o.b. New Orleans	@3.99
Second sugar, 90 basis	None
Syrup testing 63 and 65 combined sucrose and invert, New York	@ .38
Standard gran. f.o.b. refiners (2%)	@5.50
Packers curing sugar, 100 lb. bags, f.o.b. Reserve, La., less 2%	@5.00
Packers curing sugar, 250 lb. bags, f.o.b. Reserve, La., less 2%	@4.90

CHICAGO MARKET PRICES

WHOLESALE FRESH MEATS.

Carcass Beef.

	Week ended Sept. 4, 1929.	Cor. week, 1928.
Prime native steers	24 @25½	25½@26½
Good native steers	23½@24	24½@25½
Medium steers	23 @23½	23½@24½
Heifers, good	@23	20 @25
Cows	15 @18	15½@18
Hind quarters, choice	27 @31	29 @31
Fore quarters, choice	20 @21	20½@21½

Beef Cuts.

Steer loins, No. 1	@44½	@44
Steer loins, No. 2	@43½	@43
Steer short loins, No. 1	@54½	@55
Steer short loins, No. 2	@52½	@51
Steer loin ends (hips)	@35½	@34
Steer loin ends, No. 2	@35½	@34
Cow loins	@28½	@30
Cow short loins	@35½	@36
Cow loin ends (hips)	@21½	@24
Steer ribs, No. 1	@32½	@32
Steer ribs, No. 2	@31½	@31
Cow ribs, No. 2	@19½	@22
Cow ribs, No. 3	@15½	@16
Steer rounds, No. 1	@24½	@25½
Steer rounds, No. 2	@24	@25
Steer chucks, No. 1	@19	@21
Steer chucks, No. 2	@18½	@20½
Cow rounds	@20½	@21
Cow chucks	@15	@17½
Steer plates	@14½	@15½
Medium plates	@11½	@13½
Briskets, No. 1	@20	@22
Steer navel ends	@10½	@13
Cow navel ends	@10	@12
Fore shanks	@11	@11½
Hind shanks	@10	@ 9
Strip loins, No. 1, bnls.	@70	@70
Strip loins, No. 2	@60	@66
Sirloin butts, No. 1	@42	@40
Sirloin butts, No. 2	@30	@32
Beef tenderloins, No. 1	@75	@80
Beef tenderloins, No. 2	@70	@75
Rump butts	25 @30	20 @27
Flank steaks	@27	@27
Shoulder clods	20 @21	@20
Hanging tenderloins	@20	@18

Beef Products.

Brains (per lb)	@12	10 @11
Hearts	@14	@16
Tongues, 4@5	35 @36	@35
Sweetbreads	@42	@40
Ox-tails, per lb.	@15	@10
Fresh tripe, plain	7 @ 8	@ 6
Fresh tripe, H. C.	@10	@ 8½
Livers	17 @22	19 @22
Kidneys, per lb.	@14	@15

Veal.

Choice carcass	25 @26	27 @28
Good carcass	20 @24	23 @26
Good saddles	30 @35	27 @35
Good backs	18½@21	18 @21
Medium backs	14 @15	12 @14

Veal Products.

Brains, each	12 @14	11 @12
Sweetbreads	@75	@80
Calf livers	55 @60	50 @55

Lamb.

Choice lambs	@27	@32
Medium lambs	@25	@28
Choice saddles	@32	@34
Medium saddles	@31	@32
Choice fores	@24	@24
Medium fores	@21	@22
Lamb fries, per lb.	@33	@33
Lamb tongues, per lb.	@16	@15
Lamb kidneys, per lb.	@30	@30

Mutton.

Heavy sheep	@ 8	9 @10
Light sheep	@12	@16
Heavy saddles	@12	12 @15
Light saddles	@16	@18
Heavy fores	@ 7	@10
Light fores	@12	@14
Mutton legs	@18	@21
Mutton loins	@20	@15
Mutton stew	@10	@10
Sheep tongues, per lb.	@16	@15
Sheep heads, each	@12	@10

Fresh Pork, Etc.

Pork loins, 8@10 lbs. avg.	@32	@37
Picnic shoulders	@17	@17
Skinned shoulders	@18	@21
Tenderloins	@47	@54
Spare ribs	@14	@15
Back fat	@14	@13½
Boston butts	@23	@14
Hocks	@13	@28½
Tails	@12	@10
Neck bones	@ 4	@10
Slip bones	@14	@14
Blade bones	@14	@17
Pigs' feet	@ 7	4½@ 5
Kidneys, per lb.	@11	@ 9½
Livers	@ 7½	11 @12
Brains	@14	@14
Ears	@ 7	@ 5
Snouts	@ 7	@ 7
Heads	@10	@ 8

DOMESTIC SAUSAGE.

Fancy pork sausage, in 1-lb. cartons	@29
Country style sausage, fresh in link	@22
Country style sausage, fresh in bulk	@20
Country style sausage, smoked	@24
Frankfurts in sheep casings	@25½
Frankfurts in hog casings	@24
Bologna in beef bungs, choice	@21
Bologna in cloth, paraffined, choice	@18½
Bologna in beef middles, choice	@20½
Liver sausage in hog bungs	@19
Smoked liver sausage in hog bungs	@26
Liver sausage in beef rounds	@15
Head cheese	@18
New England luncheon specialty	@31
Minced luncheon specialty	@22
Tongue sausage	@24
Blood sausage	@18
Polish sausage	@21½
Souse	@16

DRY SAUSAGE.

Cervelat, choice, in hog bungs	@51
Thuringer Cervelat	@27
Farmer	@35
Holsteiner	@33
B. C. Salami, choice	@50
Milano Salami, choice, in hog bungs	@50
B. C. Salami, new condition	@29
Frisses, choice, in hog middles	@46
Genoa style Salami	@56
Pepperoni	@44
Mortadella, new condition	@27
Capicolli	@57
Italian style hams	@45
Virginia hams	@55

SAUSAGE IN OIL.

Bologna style sausage in beef rounds—	
Small tins, 2 to crate	$7.25
Large tins, 1 to crate	8.25
Frankfurt style sausage in sheep casings—	
Small tins, 2 to crate	8.50
Large tins, 1 to crate	9.50
Frankfurt style sausage in hog casings—	
Small tins, 2 to crate	8.00
Large tins, 1 to crate	9.00
Smoked link sausage in hog casings—	
Small tins, 2 to crate	7.50
Large tins, 1 to crate	8.50

SAUSAGE MATERIALS.

Regular pork trimmings	12 @12¼
Special lean pork trimmings	@18
Extra lean pork trimmings	@20
Neck bone trimmings	@15
Pork cheek meat	@14
Pork hearts	11 @12
Native boneless bull meat (heavy)	@16
Boneless chucks	@14¼
Shank meat	13½@13¾
Beef trimmings	@12
Beef hearts	10½@11
Beef cheeks (trimmed)	11½@12
Dressed canners, 300 lbs. and up	@11½
Dressed canners, 350 lbs. and up	@11¾
Dr. bologna bulls, 500@700 lbs.	@13¼
Beef tripe	@ 6
Cured pork tongues (canner trim)	16 @16½

SAUSAGE CASINGS.

(F. O. B. CHICAGO)

Beef casings:	
Domestic round, 180 pack	@ 45
Domestic round, 140 pack	@ 50
Wide export rounds	@ 57
Medium export rounds	@ 48
Narrow export rounds	60 @ 65
No. 1 weasands	@ 16
No. 2 weasands	@ 10
No. 1 bungs	38 @ 40
No. 2 bungs	@ 25
Regular middles	@1.05
Selected wide middles	@2.35
Dried bladders:	
12/15	@2.25
10/12	@2.00
8/10	@1.25
6/8	@ .85
Hog casings:	
Narrow, per 100 yds.	@2.75
Narrow, special, per 100 yds.	@2.25
Medium, regular, per 100 yds.	@1.25
Wide, per 100 yds.	@1.00
Extra wide, per 100 yds.	@1.15
Export bungs	33 @ 34
Large prime bungs	@ 23
Medium prime bungs	10 @ 12
Small prime bungs	6 @ 7
Middles	18 @ 20
Stomachs	8 @ 10

VINEGAR PICKLED PRODUCTS.

Regular tripe, 200-lb. bbl	$16.00
Honeycomb tripe, 200-lb. bbl	22.00
Pocket honeycomb tripe, 200-lb. bbl	23.00
Pork feet, 200-lb. bbl	15.50
Pork tongues, 200-lb. bbl	79.00
Lamb tongues, long cut, 200-lb. bbl	58.00
Lamb tongues, short cut, 200-lb. bbl	71.00

BARRELED PORK AND BEEF.

Mess pork, regular	$28.00
Family back pork, 24 to 34 pieces	34.50
Family back pork, 35 to 45 pieces	34.50
Clear back pork, 40 to 50 pieces	27.50
Clear plate pork, 25 to 35 pieces	20.50
Brisket pork	23.50
Bean pork	21.00
Plate beef	28.00
Extra plate beef, 200 lb. bbls.	29.00

COOPERAGE.

Ash pork barrels, black iron hoops	$1.57½@1.60
Oak pork barrels, black iron hoops	1.65 @1.67½
Ash pork barrels, galv. iron hoops	1.77½@1.80
White oak ham tierces	@3.12½
Red oak lard tierces	2.42½@2.45
White oak lard tierces	2.62½@2.65

OLEOMARGARINE.

Highest grade natural color animal fat margarine in 1-lb. cartons, rolls or prints, f.o.b. Chicago	@25
White animal fat margarines in 1-lb. cartons, rolls or prints, f.o.b. Chicago	@20½
Nut, 1-lb. cartons, f.o.b. Chicago (30 and 60-lb. solid packed tubs, 1c per lb. less.)	@17
Pastry, 60 lb. tubs, f.o.b. Chicago	@15

DRY SALT MEATS.

Extra short clears	@14
Extra short ribs	@14
Short clear middles, 60-lb. avg.	@16
Clear bellies, 18@20 lbs.	@14⅛
Clear bellies, 14@16 lbs.	@14⅜
Rib bellies, 20@25 lbs.	@14⅞
Rib bellies, 25@30 lbs.	@13¾
Fat backs, 10@12 lbs.	@10⅜
Fat backs, 14@16 lbs.	@11¼
Regular plates	@11½
Butts	@ 8¼

WHOLESALE SMOKED MEATS.

Fancy reg. hams, 14@16 lbs.	@28½
Fancy skd. hams, 14@16 lbs.	@30
Standard reg. hams, 14@16 lbs.	@28
Picnics, 4@8 lbs.	@21
Fancy bacon, 6@8 lbs.	@33½
Standard bacon, 6@8 lbs.	@28½
No. 1 beef ham sets, smoked—	
Insides, 8@12 lbs.	@50
Outsides, 5@9 lbs.	@42
Knuckles, 5@9 lbs.	@46
Cooked hams, choice, skin on, fatted	@42
Cooked hams, choice, skinned, fatted	@42
Cooked hams, choice, skinless, fatted	@44
Cooked picnics, skin on, fatted	@26
Cooked picnics, skinned, fatted	@27
Cooked loin roll, smoked	@46

ANIMAL OILS.

Prime edible lard oil	@14½
Headlight burning oil	@12⅜
Prime W. S. lard oil	@12⅛
Extra W. S. lard oil	@11⅞
Extra lard oil	@11½
Extra No. 1 lard oil	@11⅛
No. 1 lard oil	@10¾
No. 2 lard oil	@10½
Acidless Tallow oil	@10¼
20 D. C. T. neatsfoot	@18
Pure neatsfoot oil	@14
Special neatsfoot oil	@11¾
Extra neatsfoot oil	@11⅜
No. 1 neatsfoot oil	@11

Oil weighs 7½ lbs. per gallon. Barrels contain about 50 gals. each. Prices are for oil in barrels.

LARD.

Prime steam	@11.90
Prime steam, loose	@11.65
Kettle rendered, tierces	@11.87
Refined lard, boxes, N. Y.	@13.25
Leaf, raw	@11.50
Neutral, in tierces	@13.75
Compound, acc. to quantity	11.25@11.50

OLEO OIL AND STEARINE.

Oleo oil, extra, in tierces	10¼@10½
Oleo stocks	9⅞@10
Prime No. 1 oleo oil	@ 9½
Prime No. 2 oleo oil	@ 9⅜
Prime No. 3 oleo oil	@ 9⅛
Prime oleo stearine, edible	9½@10

TALLOWS AND GREASES.

Edible tallow, under 1% acid, 45 titre	8½@ 8⅝
Prime packers tallow	8¼@ 8½
No. 1 tallow, 10% f.f.a.	7⅝@ 7⅞
No. 2 tallow, 40% f.f.a.	6⅞@ 7
Choice white grease	8 @ 8¼
A-White grease	7½@ 7⅝
B-White grease, max. 5% acid	7⅜@ 7½
Yellow grease, 10@15% f.f.a.	7 @ 7¼
Brown grease, 40% f.f.a.	6⅞@ 7

VEGETABLE OILS.

Crude cottonseed oil in tanks, f.o.b. Valley points, nom., prompt	@ 7⅜
White, deodorized, in bbls., c.a.f. Chgo.	10½@10⅝
Yellow, deodorized, in bbls.	10½@10⅝
Soap stock, 50% f.f.a., f.o.b.	2⅜@ 2½
Corn oil, in tanks, f.o.b mills	7⅞@ 8
Soya bean, f.o.b. mill	9 @ 9¼
Cocoanut oil, seller's tanks, f.o.b. coast	6⅛@ 6⅜
Refined in bbls., c.a.f., Chicago, nom.	9¼@ 9⅜

SPICES.

(These prices are basis f.o.b. Chicago.)

	Whole.	Ground.
Allspice	31	34
Cinnamon	14	18
Cloves	36	40
Coriander	6	8
Ginger	..	20
Mace	1.00	1.05
Nutmeg	..	36
Pepper, black	37	40½
Pepper, Cayenne	..	40
Pepper, red	..	24
Pepper, white	65	69

Retail Section

Is Cash or Credit Best?

How One Retailer Has Solved the Cash or Credit Problem

By A. C. Schueren.

Cash or credit—which is best?

The only positive answer to this is that both are good, for a successful meat business must be run to suit the needs and conditions of any given locality.

It is well-known that the great majority of the consuming public buys meat by "price."

Notwithstanding this fact, there are also plenty of people who order over the telephone and do not ask the price. They want the best meats and do not care how much the retailer charges for the meats and the service he renders.

There are also many stores which extend credit and delivery and who also at the same time enjoy considerable cash trade.

Delivery and Credit Costs.

A retailer who delivers and extends credit naturally operates his business at a much higher overhead expense than the retailer who does not.

A delivery system costs considerable money and it is also expensive to carry accounts on books. It is not unusual that delivery service alone is equal to 6 cents on the dollar, and a few cents added for bookkeepers, carrying the accounts, bad debts, etc., makes the overhead of such a store from 8 to 12 per cent higher than the average cash and carry store.

Is It Fair to Customer.

Now the important question arises—is it fair to a customer who pays spot cash for her food products and carries them home, to pay the same price as the customer who charges her bills and gets the product delivered?

Fundamentally speaking, it is not fair to the cash customer to pay for something she does not get.

The selling price of a retailer who delivers and carries accounts is bound to be higher than that of the "cash and carry" store. It is but natural.

Therefore, it is not fair to the customer who pays cash and carries her goods home to make her pay for the additional overhead of carrying accounts and of the delivery system. The cash customer who pays the same price as a credit and delivery customer pays for something she does not get.

There are, of course, many retailers who admit that they are charging delivery customers higher prices, but the customer usually does not know it. That is not a fair method of doing business.

One Retailer's Method.

To settle this problem, Wm. Rasch of Rasch's Market at Lake Geneva, Wis., had enough confidence in his own convictions to come right out in the open and tell his customers that such methods of doing business are not fair.

Mr. Rasch has a high-class, spic-and-span market in the beautiful summer resort city of Lake Geneva. This city has as its residents during the summer months some of the wealthiest people from nearby Chicago—people who want charge accounts, delivery, and who are willing to pay for it.

However, Lake Geneva also attracts a great number of people who may be classified as tourists and vacationists—folks who are not willing to pay high prices for something they do not get.

Openly Advertises Two Prices.

Mr. Rasch enjoys the trade of both classes. He therefore adopted a policy of openly advertising two prices—one for the cash and carry trade, and another for delivery and charge accounts. The illustration with this article shows the neat arrangement of the adjustable signs which Mr. Rasch has in his store, plainly visible to every customer who comes to the store.

There is a difference of 4 cents per pound between the cash price and the credit and delivery price. This, of course, is an inducement for customers to pay cash and carry their meats home with them, for the cash prices, literally speaking, stare them right in the face. They are plainly visible.

Furthermore, it gets the customers to thinking, and as Mr. Rasch mentioned, this new policy has worked out very successfully. He claims, however, that there are some people whom no one can please.

He has had this system working for over a year and a half, and he intends to keep it up as he claims it is the only fair method of doing business, and fundamentally speaking, the great majority of retailers will agree with Mr. Rasch.

Interesting Signs Employed.

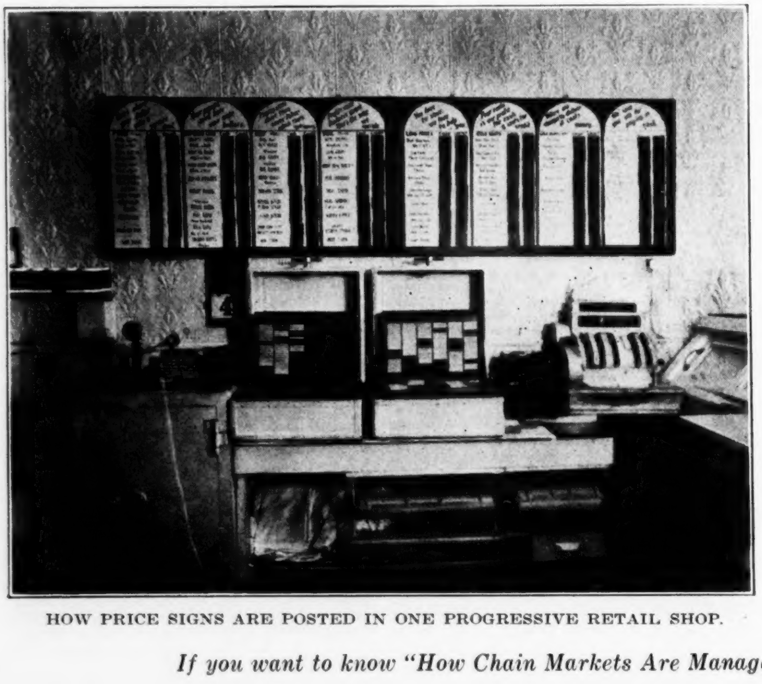
Over the signs, Mr. Rasch has slogans which he changes frequently. One is: "We save you 10% for paying cash."

However, a close analysis brings this figure even somewhat higher, for although he charges 4 cents per pound for charging and delivery, it amounts to about 12 or 14 cents on the dollar. We believe the fair average is about 12 cents difference between cash and credit.

Another sign reads: "4c is our profit for cash—8c for credit."

A very interesting slogan reads: "Profits small, business great; that's the way we operate."

Another one which seems to hit the nail on the head reads: "Here is where your dollars get a square deal."



HOW PRICE SIGNS ARE POSTED IN ONE PROGRESSIVE RETAIL SHOP.

If you want to know "How Chain Markets Are Managed" see pages 25-26.

Table showing examples of difference in selling prices for "Cash and Carry" and "Credit and Delivery" at Rasch's Market, Lake Geneva, Wis.

BEEF.	Cash price.	Credit price.
Baby beef pot roast	32c	36c
Standing rib roast	34c	38c
Boneless rib roast	40c	44c
Rump roast	34c	38c
Round steak	42c	46c
Flank steak	42c	46c
Club steak	44c	48c
PORK.		
Pork loins—whole or half	32c	36c
Pork butts	28c	32c
Fresh hams	30c	34c
Center cut pork chops	38c	42c
End cut pork chops	22c	26c
Spare ribs	18c	22c

VEAL.	Cash price.	Credit price.
Veal steaks—round bone	55c	59c
Veal chops	45c	49c
Rump roast	35c	39c
Veal shoulder	38c	42c
Veal stew	24c	28c
Calves' liver	65c	70c
LAMB.		
Hindquarter	42c	46c
Leg of lamb	38c	42c
Loin chops	55c	60c
Rib chops	50c	55c
Shoulder chops	44c	48c
Lamb stew	20c	24c
Lamb shoulder	40c	44c

Mr. Rasch has been in business in Lake Geneva since 1896. His son is the one who makes the attractive signs and slogans. Mr. Rasch himself is considered a successful retailer and an inventor besides.

In his market, smokehouse, etc., are ingenious devices which help him save labor and all are invented by himself. One thing of interest is a two-story cooler, designed by himself. The trade can look right in to the upper story through a plate glass window.

NEWS OF THE RETAILERS.

The Lesser Bros. Co., San Francisco, Calif., has moved its meat market from 877 to 751 Market st.

R. L. O'Mealey has purchased the Reynolds meat market, Lamont, Okla., and his son, George, will be in charge.

The Peoples Meat Market, Linn, Okla., has joined the R. Grocery chain, and is remodeling.

Bill Woo and C. T. Gim have purchased the Panama Market, Sacramento, Calif.

H. M. Saling will open a meat market in the Linscheid Bros. grocery store, Pittsburgh, Calif.

August Hertneck has sold out his meat and grocery business at 388 Colusa ave., Berkeley, Calif., to Case & Sanders.

Gerald Rhynard has purchased the Ramsey Meat Market, Perrinton, Mich.

Wm. J. Enders has engaged in business at 523 N. Broad st., Adrian, Mich., as the Broad Street Meat Market.

Dan Wyrobkiewicz has purchased the meat market at 6603 Miller ave., Detroit, Mich., from Ignatz Bazger.

Bayee & Heard have succeeded J. W. Heard in the management of the Peoples Meat Market, Ontonagon, Mich.

The J. B. Savage meat market, Shoals, Ind., is now owned by Dant & Osborne.

Carl Jones has purchased the meat market of P. S. McKinney at Petersburg, Ind.

James Hopkins has purchased the meat and grocery business of Harry Williams at New Castle, Ind.

Harry A. Nelson has sold his interest in the meat business of Nelson Brothers, Salem, Ore., to Walter Nelson and others.

The United Groceries & Market, Inc. of Seattle, Wash., has opened branches at Burlington and Sequim, Wash.

The Security Meat Co. has been incorporated at Seattle, Wash., with capital stock of $5,000.

The Buy Rite Market has been opened at Burns, Ore., by C. B. Wallace and Peter Harris.

A recent fire damaged the meat and grocery establishments of C. E. Mitchell and O. G. Miller, Maricopa, Calif.

Claude Connelly has sold out the City Meat Market, Selden, Kan., to Clifford Leister.

Frank Mueller has engaged in the meat and grocery business at Overland Park, Kan.

Fred Eiler has added a stock of groceries to his meat market at Taloga, Okla.

The St. Louis Mercantile Co. has purchased the City Meat Market, Scranton, Kan.

Wm. Gassar is about to engage in the meat business at Laurel, Ind.

Clifford Carroll has purchased the meat business of Fred Addison, Milroy, Ind.

J. H. Moyer and E. J. Donnell, Salem, Ore., have leased the meat market of Steusloff Bros., Inc.

Harry Oddie, retail meat dealer, 351 Center st., Brockton, Mass., has filed voluntary petition in bankruptcy, listing liabilities of $4,180 and assets of $1,083.

WANT PACKERS TO RETAIL.

(Continued from page 24.)

New York; Charles H. Hays, president, Keystone Grape Growers' Co-operative Association of Pennsylvania; O. C. Kalsem, president, Iowa Co-operative Live Stock Shipping Association; L. E. Mackey, secretary-treasurer, Idaho Cattle and Horse Growers' Association, and E. M. Harmon, Des Moines, Ia., editor of "Successful Farming."

These representatives urged drastic modification of the decree. Such modification was also urged by W. I. Drummond, chairman of the board of governors of the American Farm Congress, which represents a membership of over 100,000 cooperative farmers and others interested in farming.

Mr. Drummond urged that the decree be modified to the extent that all packers be permitted to operate retail stores and handle unrelated food lines. His organization is of the opinion that packers should have the same right to "follow through" that other industries, notably the oil and petroleum industry, enjoy.

Over 300 farm organizations have been invited by the department to present their views on the modification of the decree affecting the four large packers.

Tell This to Your Customers

Under this heading will appear information which should be of value to meat retailers in educating their customers and building up trade. Cut it out and use it.

COOKING FROSTED CHOPS.

How are frosted lamb chops or pork chops cooked?

One home economics expert suggests that they should not be defrosted before cooking. She says: "I put them into a carefully preheated and deep broiling oven and watched. The question was how long to cook these chops so well framed in fat."

By lessening the fire after five minutes, when the whole piece of meat had begun to broil, turning the chop at ten minutes by sticking the fork into the fat and adding salt at that time, then cooking 10 more minutes after the reverse side of the chop had been fully seared, with decreasing heat in the oven in the final period, the chop will have the same general outward appearance as of a perfectly roasted fowl.

The fat will be evenly brown and crisp and edible, and the chop will not be burnt in any part.

Commenting on the fat of lamb, this food expert says: "When lamb fat is perfectly cooked it has largely the same flavor as the lean, besides having a quality that is its own. And for a food to drive the human machine, it has a great deal more value."

As retail meat dealers are furnished more and more frosted chops for their trade, retailers should be prepared to advise consumer buyers of the way to cook these chops for best results. As is well known, the best of meat can be spoiled in the cooking.

New York Section

NEW YORK NEWS NOTES.

S. P. Nash of the Cleveland Provision Co., Cleveland, Ohio, visited in New York this week.

H. McHugh, credit manager, Joseph Stern & Sons, Inc., will be at Virginia Beach, Va., for the next few weeks.

L. F. Gerber, superintendent, Nagle Packing Company, Jersey City, is spending his vacation with his family at Avon, N. J.

The branch house of the Cudahy Packing Co., located at Passaic, N. J., was damaged by fire on Thursday night, August 29. Repairs are being made at once.

Samuel Slotkin, president of the Hygrade Provision Co. has suffered a great loss in the death of his brother Morris, which occured on September 1 in Buffalo, N. Y.

Irving E. Hand, manager of the F. A. Ferris & Co. plant of Stahl-Meyer Inc., and his family are motoring to Bangor, Maine, where they will spend a few weeks.

Nathan Strauss, Inc., announce the opening of a new store at 776 Flatbush Avenue, Brooklyn, N. Y., and extensive alterations to their market located at 93 Main Street, White Plains, N. Y.

T. G. Lee, vice president, Armour and Company, Chicago, visited New York during the past week. F. A. Benson, beef department, Armour and Company, Chicago, spent a few days in New York last week.

Walter S. Johnston, beef cutting department, Swift & Company, Chicago, spent a few days in New York last week. John Patterson, beef department, Swift & Company, central office, New York, is vacationing at Sparrow Bush, N. Y.

The Graf Zeppelin, on its recent world tour, served Wiltshire Brand Hams to its passengers. These hams were processed by the Cleveland Provision Co. and loaded by Charles Gachot, Inc., of 429 West 14th Street, New York.

John V. Fisher, chief engineer at the plant of the New York Butchers' Dressed Meat Co., is spending his vacation in the middle West. Frank Gould of the superintendent's department of the New York Butchers' Dressed Meat Co., is vacationing at Atlantic City, N. J.

Following is a report of the New York City Health Department of the number of pounds of meat, fish, poultry and game seized and destroyed in the City of New York during the week ended Aug. 31, 1929: Meat—Manhattan, 1,298 lbs. Poultry and game—Manhattan, 28 lbs.; Queens, 3 lbs.; total 31 lbs.

Michael M. Rosenthal, secretary of Nathan Strauss, Inc., has just returned from a trip throughout Massachusetts and Connecticut. The Strauss-Roth Stores, Inc., will establish new stores at the following locations: Meriden, Middletown and Hartford, Connecticut; Allentown, Bethlehem and South Bethlehem, Pennsylvania and at Asbury Park, N. J.

Miss Helen MacCracken of the F. A. Ferris & Co. plant of Stahl-Meyer, Inc. is vacationing in the Berkshires, and upon her return to the city will assume her duties as secretary to G. A. Schmidt, president of Stahl-Meyer, Inc. Miss Mabel Fink, who formerly held this position, will become assistant purchasing agent and secretary to Otto Webber, vice president of the company.

A welcome home dinner will be tendered G. A. Schmidt, president of the Stahl-Meyer Co., on Saturday evening, September 14, at eight o'clock at Luchow's restaurant, 108 East 14th street. Mr. Schmidt and his family will return on the Carinthia on September 9. The entire sales force of the Stahl-Meyer and Ferris plants will attend, headed by Louis Meyer, vice president and treasurer of the company.

AMONG RETAIL MEAT DEALERS.

Mrs. Carrie Loeb, wife of the late Moe Loeb and mother of Albert Loeb, one of the directors of Ye Olde New York Branch, suffered a slight stroke of paralysis on August 29, while visiting some friends, but is now at home and recovering.

The board of directors of Ye Olde New York Branch held a regular meeting on September 3, at which the routine affairs of the branch were discussed.

NEW YORK MEAT SUPPLIES.

Receipts of Western dressed meats and local slaughters under federal inspection at New York, for week ended Aug. 31, 1929, with comparisons:

Westn. drsd. mts.	Week ended Aug. 31.	Prev. week.	Cor. week, 1928.
Steers, carcasses	7,013	6,781	6,147½
Cows, carcasses.	415	505	6 5
Bulls, carcasses.	21	21	60
Veals, carcasses	6,426	5,503	6,513
Lambs, carcasses	24,101	21,341	19,259
Mutton, carcasses	4,679	3,200	2,774
Beef cuts, lbs..	294,436	187,358	281,892½
Pork cuts, lbs..	1,423,735	950,539	655,111
Local slaughters:			
Cattle	8,655	8,000	10,116
Calves	13,662	13,355	13,862
Hogs	42,373	38,220	33,491
Sheep	66,950	69,323	64,654

MEAT IMPORTS AT NEW YORK.

Imports of meats and meat products received at the port of New York for the week ended August 31, 1929, according to the U. S. Bureau of Agricultural Economics:

Point of origin.	Commodity.	Amount.
Argentine	Canned corned beef	255,650 lbs.
Canada	Pork cuts	7,158 lbs.
Canada	Beef extract	2,280 lbs.
Canada	Bacon	1,199 lbs.
Canada	Quarters of beef	273
Canada	Beef cuts	46,465 lbs.
Canada	Vealers	756
England	Potted meats	2,785 lbs.
Germany	Bacon	143 lbs.
Germany	Ham	234 lbs.
Germany	Sausage	331 lbs.
Ireland	Ham	667 lbs.
Ireland	Bacon	2,300 lbs.
Italy	Ham	3,858 lbs.
Italy	Sausage	9,198 lbs.
Uruguay	Canned corned beef	167,400 lbs.

FAITHFUL EMPLOYEE DIES.

Arthur F. Prisley, superintendent of glue manufacture for W. Harris & Co., Ltd., Toronto, Canada, for the past 25 years, died on August 25 at the age of 61. Director Harris states that Mr. Prisley was one of the most conscientious employees he ever knew. In his 25 years of service with the Harris company Mr. Prisley was on the job from six a. m. to six p. m. without ever losing a day's time.

NEW YORK MARKET PRICES

LIVE CATTLE.

Steers, good	$13.50@14.25
Steers, medium	10.75@13.50
Cows, common and medium	7.00@ 8.50
Bulls, cutter-medium	6.00@ 9.25

LIVE CALVES.

Vealers, good to choice	$16.00@19.50
Vealers, medium	11.25@16.00

LIVE SHEEP AND LAMBS.

Lambs, good to choice	$13.25@14.25
Lambs, medium	11.00@13.25
Lambs, common	8.00@11.00
Ewes, medium to choice	4.50@ 6.50

LIVE HOGS.

Hogs, 160-210 lbs.	$ @12.10
Hogs, medium	@12.10
Hogs, 120 lbs.	@12.10
Roughs	@ 9.00
Good Roughs	@ 9.25

DRESSED HOGS.

Hogs, heavy	@17¾
Hogs, 180 lbs.	@17¾
Pigs, 80 lbs.	@18¼
Pigs, 80-140 lbs.	@18

DRESSED BEEF.

CITY DRESSED.

Choice, native heavy	.26 @27
Choice, native light	.26 @27
Native, common to fair	.24 @25½

WESTERN DRESSED BEEF.

Native steers, 600@800 lbs.	.24 @26
Native choice yearlings, 400@600 lbs.	.25 @26
Good to choice heifers	.23 @24
Good to choice cows	.19 @21
Common to fair cows	.16 @18
Fresh bologna bulls	.17 @18

BEEF CUTS.

	Western.	City.
No. 1 ribs	@32	31 @32
No. 2 ribs	.28 @30	29 @30
No. 3 ribs	.25 @27	27 @28
No. 1 loins	@40	42 @44
No. 2 loins	.36 @38	36 @41
No. 3 loins	.30 @35	32 @35
No. 1 hinds and ribs	.29 @30	30 @32
No. 2 hinds and ribs	.28 @29	28 @29
No. 3 hinds and ribs	.26 @27	26 @27
No. 1 rounds	@24	22 @23
No. 2 rounds	.22 @23	20 @21
No. 3 rounds	.22 @23	@19
No. 1 chucks	.22 @23	@23
No. 2 chucks	.20 @21	@22
No. 3 chucks	@19	@21
Bolognas	@17	17 @18
Rolls, reg., 6@8 lbs. avg		.22 @23
Rolls, reg., 4@6 lbs. avg		.17 @18
Tenderloins, 4@6 lbs. avg		.60 @70
Tenderloins, 5@6 lbs. avg		.80 @90
Shoulder clods		.10 @11

DRESSED VEAL AND CALF.

Prime veal	@31
Good to choice veal	.28 @30
Med. to common veal	.15 @21
Good to choice calves	.21 @25
Med. to common calves	.17 @21

DRESSED SHEEP AND LAMBS.

Lambs, prime	.29 @30
Lambs, good	.25 @27
Sheep, good	.14 @15
Sheep, medium	.10 @13

FRESH PORK CUTS.

Pork loins, fresh, Western, 10@12 lbs.	.30 @31
Pork tenderloins, fresh	.58 @60
Pork tenderloins, frozen	.55 @56
Shoulders, city, 10@12 lbs. avg	.19 @20
Shoulders, Western, 10@12 lbs	.19 @20
Butts, boneless, Western	.28 @29
Butts, regular, Western	.24 @25
Hams, Western, fresh, 10@12 lbs. avg.	.26 @27
Hams, city, fresh, 6@10 lbs. avg	.28 @29
Picnic hams, Western, fresh, 6@8 lbs. average	.17 @18
Pork trimmings, extra lean	.25 @26
Pork trimmings, regular, 50% lean	.15 @16
Spareribs, fresh	.16 @17

SMOKED MEATS.

Hams, 8@10 lbs. avg	.26 @27
Hams, 10@12 lbs avg	.25½@26½
Hams, 12@14 lbs. avg	.25 @26
Picnics, 4@6 lbs. avg	.17½@18½
Picnics, 6@8 lbs. avg	.17 @18
Rollettes, 6@8 lbs. avg	.18 @19
Beef tongue, light	.32 @36
Beef tongue, heavy	.36 @38
Bacon, boneless, Western	.23 @24
Bacon, boneless, city	.22 @23
Pickled bellies, 8@10 lbs. avg	.19 @20

FANCY MEATS.

Fresh steer tongues, untrimmed	30c	a pound
Fresh steer tongues, l. c trm'd	43c	a pound
Sweetbreads, beef	70c	a pound
Sweetbreads, veal	$1.00	a pair
Beef kidneys	20c	a pound
Mutton kidneys	11c	each
Livers, beef	35c	a pound
Oxtails	18c	a pound
Beef hanging tenders	30c	a pound
Lamb fries	10c	a pair

BUTCHERS' FAT.

Shop fat	@ 2
Breast fat	@ 4
Edible suet	@ 5½
Cond. suet	@ 4½

GREEN CALFSKINS.

	5-9	9½-12½	12½-14	14-18	18 up
Prime No. 1 veals	.21	2.30	2.50	2.70	3.75
Prime No. 2 veals	.19	2.10	2.25	2.45	3.50
Buttermilk No. 1	.18	1.95	2.15	2.35	...
Buttermilk No. 2	.16	1.75	1.90	2.10	...
Branded Gruby	.10	1.15	1.20	1.40	1.95
Number 3	At value				

LIVE POULTRY.

Fowls, colored, per lb. via freight	.28 @29
Fowls, Leghorn	@26

BUTTER.

Creamery, extras (92 score)	@44
Creamery, firsts (88 to 89 score)	.40¾@41¾
Creamery, seconds (84 to 87 score)	.39 @40¼
Creamery, lower grades	.38 @38½

EGGS.

(Mixed colors.)

Extras, dozen	.41 @42
Extra firsts, doz	.38 @40
Firsts, doz.	.35½@37
Checks	.25 @30

DRESSED POULTRY.

FRESH KILLED.

Fowls—fresh—dry packed—12 to box—fair to good:

Western, 60 to 65 lbs. to dozen, lb.	.30 @34
Western, 48 to 54 lbs. to dozen, lb.	.29 @30
Western, 43 to 47 lbs. to dozen, lb.	.28 @29
Western, 36 to 42 lbs. to dozen, lb.	.27 @28
Western, 30 to 35 lbs. to dozen, lb.	.26 @27

Fowls—fresh—dry pkd.—12 to box—prime to fcy.:

Western, 60 to 65 lbs. to dozen, lb.	.35 @36
Western, 48 to 54 lbs. to dozen, lb.	.31 @32
Western, 43 to 47 lbs. to dozen, lb.	.30 @31
Western, 36 to 42 lbs. to dozen, lb.	.29 @30
Western, 30 to 35 lbs. to dozen, lb.	.28 @29

Ducks—

Long Island, per lb., prime to fancy	.24 @25

Turkeys—

Argentine, young toms, 14-16 lbs.	.42 @44
Argentine, young hens, 10 lbs. up	.40 @41

Squabs—

White, ungraded, per lb.	.40 @50

Fowls—frozen—dry pkd.—12 to box—fair to good:

Western, 60 to 65 lbs. to dozen, lb.	.30 @34
Western, 55 to 59 lbs. to dozen, lb.	.30 @32
Western, 48 to 54 lbs. to dozen, lb.	.29 @30
Western, 43 to 47 lbs. to dozen, lb.	.28 @29
Western, 30 to 35 lbs. to dozen, lb.	.26 @27

BUTTER AT FOUR MARKETS.

Wholesale prices of 92 score butter at Chicago, New York, Boston and Philadelphia, week ended Aug. 29, 1929:

Aug.	23	24	26	27	28	29
Chicago	41½	41½	42½	43	43	43
N. Y.	43	43	43½	43½	43¾	44
Boston	43½	43½	44	44	44	44½
Phila.	44	44	44½	44½	44¾	45

Wholesale prices of carlots—fresh centralized butter—90 score at Chicago:

41½	41½	42	42½	42½	42½

Receipts of butter by cities (tubs):

	Wk. to Aug. 29.	Prev. week.	Last year.	Since Jan. 1— 1929.	—Since Jan. 1 1928.
Chicago.	36,793	39,822	33,674	2,354,035	2,246,948
N. Y.	56,535	57,917	57,080	2,575,417	2,423,856
Boston.	16,946	15,264	17,599	891,183	943,638
Phila.	18,035	15,989	14,490	816,038	800,463
Total	128,309	128,992	122,843	6,636,673	6,414,905

Cold storage movement (lbs.):

	In Aug. 29.	Out Aug. 29.	On hand Aug. 30.	Same week-day last year.
Chicago	30,300	117,765	29,048,892	22,855,624
New York	162,260	87,182	22,539,396	16,188,531
Boston	44,222	77,378	10,679,750	11,183,097
Phila.	76,850	69,982	7,094,184	6,657,901
Total	313,632	352,307	69,362,222	56,885,153

FERTILIZER MATERIALS.

BASIS NEW YORK DELIVERY.

Ammoniates.

Ammonium sulphate, bulk, delivered per 100 lbs.	2.10@ 2.15
Ammonium sulphate, double bags, per 100 lbs. f.a.s. New York	@ 2.15
Blood, dried, 15-16% per unit	@ 4.45
Fish scrap, dried, 11% ammonia 10% B. P. L. f.o.b. fish factory	3.75 & 10c
Fish guano, foreign, 13@14% ammonia, 10% B. P. L.	4.50 & 10c
Fish scrap, acidulated, 6% ammonia, 3% A. P. A., f.o.b. fish factory	3.50 & 50c
Soda Nitrate, in bags, 100 lbs. spot	@ 2.08
Tankage, ground, 10% ammonia, 15% B. P. L. bulk	4.50 & 10c
Tankage, unground, 9@10% ammo	4.25 & 10c

Phosphates.

Foreign bone meal, steamed, 3 and 50 bags, per ton c.i.f.	@27.00
Bone meal, raw, 4½ and 50 bags, per ton	@36.50
Acid phosphate, bulk, f.o.b. Baltimore, per ton, 16% flat	@ 9.50

Potash.

Manure salt, 20% bulk, per ton	@12.50
Kainit, 12.4% bulk, per ton	@ 9.10
Muriate in bags, basis 80%, per ton.	@36.75
Sulphate in bags, basis 90%, per ton	@47.75

Beef.

Cracklings, 50% unground	@ 1.10
Cracklings, 60% unground	@ 1.20

Meat Scraps, Ground.

50%	@65.00
55%	@75.00

BONES, HOOFS AND HORNS.

Round shin bones, avg. 48 to 50 lbs., per 100 pcs.	95.00@125.00
Flat shin bones, avg. 40 to 45 lbs., per 100 pcs.	@ 85.00
Black or striped hoofs, per ton	45.00@ 50.00
White hoofs, per ton	@ 75.00
Thigh bones, avg. 85 to 90 lbs., per 100 pieces	@110.00
Horns, according to grade	75.00@200.00

NEW YORK LIVESTOCK.

Receipts of livestock at New York markets for week ended Aug. 31, 1929, are officially reported by the U. S. Bureau of Agricultural Economics as follows:

	Cattle.	Calves.	Hogs.	Sheep.
Jersey City	4,294	7,920	1,126	41,639
Central Union	2,426	1,179	....	13,345
New York	718	4,178	20,582	7,701
Total	7,428	13,277	21,708	62,685
Previous week	6,951	12,681	20,966	64,042
Two weeks ago	6,095	12,275	19,261	76,324

7, 1929.

ALS.
RY.

.10@ 2.15

@ 2.15
@ 4.45

.75 & 10c

.50 & 10c

.3.50 & 50c
@ 2.08

.50 & 10c
.25 & 10c

@27.00

@36.50

@ 9.50

@12.50
@ 9.10
@36.75
@47.75

@ 1.10
@ 1.20

@65.00
@75.00

ORNS.

95.00@125.00

@ 85.00
45.00@ 50.00
@ 75.00

@110.00
75.00@200.00

OCK.
New York
. 31, 1929,
the U. S.
nomics as

Hogs.	Sheep.
1,126	41,639
....	13,345
20,582	7,701
21,708	62,685
20,966	64,042
19,261	76,324